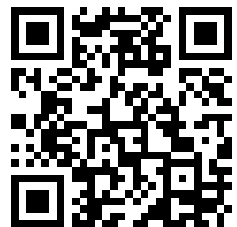

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Bacteriology - *Streptococcus* - *Streptococcus* - *Streptococcus*
causing

M. A. H. H. H.

Giff

Eimer
QDH

**Revised and Enlarged
CATALOGUE**

... OF ...

Bacteriological
≡≡≡ **APPARATUS** ≡≡≡

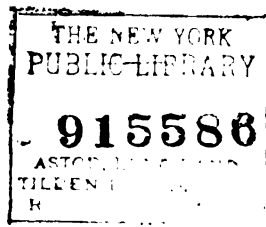


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**205, 207, 209, and 211
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1907



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ASTOR LENOX AND
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Catalogue of Bacteriological Apparatus.

We herewith beg to present this to our numerous friends and customers, who, we hope, will find the desired information as to special apparatus and scientific instruments used in Bacteriological and kindred laboratories. Not caring to extend the scope of this catalogue too far, only a limited number of the best goods in their respective classes are listed, such as :

Microscopes,

Microtomes,

Incubators, etc.

of which complete lists of the respective manufacturers may be had on application. As far as the general laboratory apparatus are, concerned we have listed only the most necessary ones and have to refer for a complete list of same to our **GENERAL APPARATUS CATALOGUE** which is about to be republished.

Besides these catalogues we publish special lists on:—

Assay Materials,

Balances and Weights,

Calorimeters, Pyrometers, etc.

Chemicals, Stains, Minerals, etc.

Electric Laboratory Outfits,

Sugar Laboratory Furnaces,

Urinary Apparatus, etc., etc.

Our increased facilities and additional floor space will enable us to fill orders more promptly than heretofore.

We are connected with the following well-known European and American houses :

Messrs. Schott & Genossen, makers of the famous Jena Laboratory Glass Ware,

Joseph Kavalier, maker of the best Bohemian Glassware,

Carl Zeiss', Microscopes, Objectives, etc.

Franz Schmidt & Haensch, Polariscopes, Optical Goods, etc.

F. & M. Lautenschlaeger, Bacteriological Apparatus,

Greiner & Friedrichs, German Graduated and other Glassware,

Carl Schleicher & Schuell, Chemically Pure Filter Papers,

E. March Söhne, German Chemical Stoneware,

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Desmoutis & Co.'s, Pure Hammered Platinum,

Dr. G. Gruebler & Co.'s Microscopic and Bacteriological Stains,

C. A. F. Kahlbaum's C. P. Chemicals and Tested Reagents,

The Spencer Lens Co., Microscopes and Accessories,

and Others.

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Educational Institutions entitled to free entry of foreign goods that desire to avail themselves of the opportunity to save on their requisitions for supplies by importing them free of duty, may be assured of our lowest prices as well as the best and quickest service in entrusting their orders to us, as we have unlimited facilities in having our orders abroad speedily executed.

EIMER & AMEND.

NEW YORK, August, 1907.

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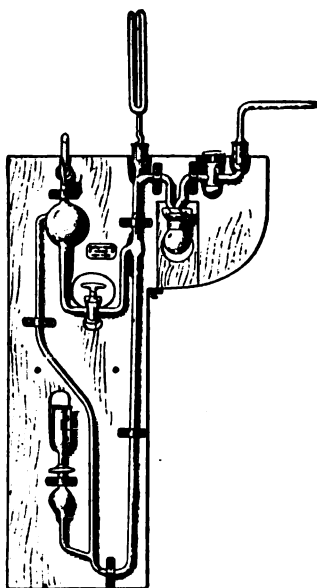
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In order to insure safe delivery, all goods are packed by experienced men and we cannot assume any responsibility after delivery in perfect condition to the Transportation Company, unless the same are insured against breakage at a cost of from 2% to 5%. No charge is made for packing. Cases will be charged at cost price.

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- △ Denotes that the goods are imported to order only.
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- Denotes that prices are strictly net.
- Denotes that a discount of only 10% will be allowed.



B.

NEW AUTOMATIC AIR PUMP. Designed by Dr. B. B. Boltwood. This Pump is simpler and more compact than any other mercury pump, the total height being 28 inches, **requiring only 3 pounds of Mercury.** It is operated by a small water aspirator (about 25 feet water pressure being sufficient), which keeps the mercury in continuous circulation and carries off the exhausted air. After being once started it requires no attention and will run for days without further adjustment. For almost every purpose it is quite as effective as the expensive and complicated Geissler pump, and by its use a vessel can be exhausted to a cathode-ray vacuum in a comparatively short time.

— Pump, mounted on polished mahogany support,	\$20.00
— Pump, Ditto, with vacuum gauge,	23.00
*— Pump, Ditto, “ “ “ and drying chamber for P_2O_5 ,	25.00
— Glass Aspirator for operating Pump,	1.00
— Brass “ “ “ “	1.25

ZEISS' MICROSCOPES

Objectives and Accessories

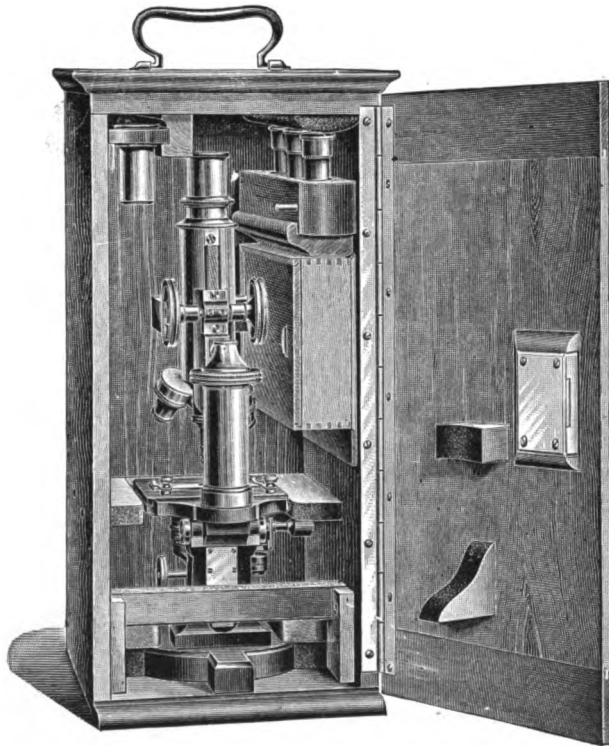
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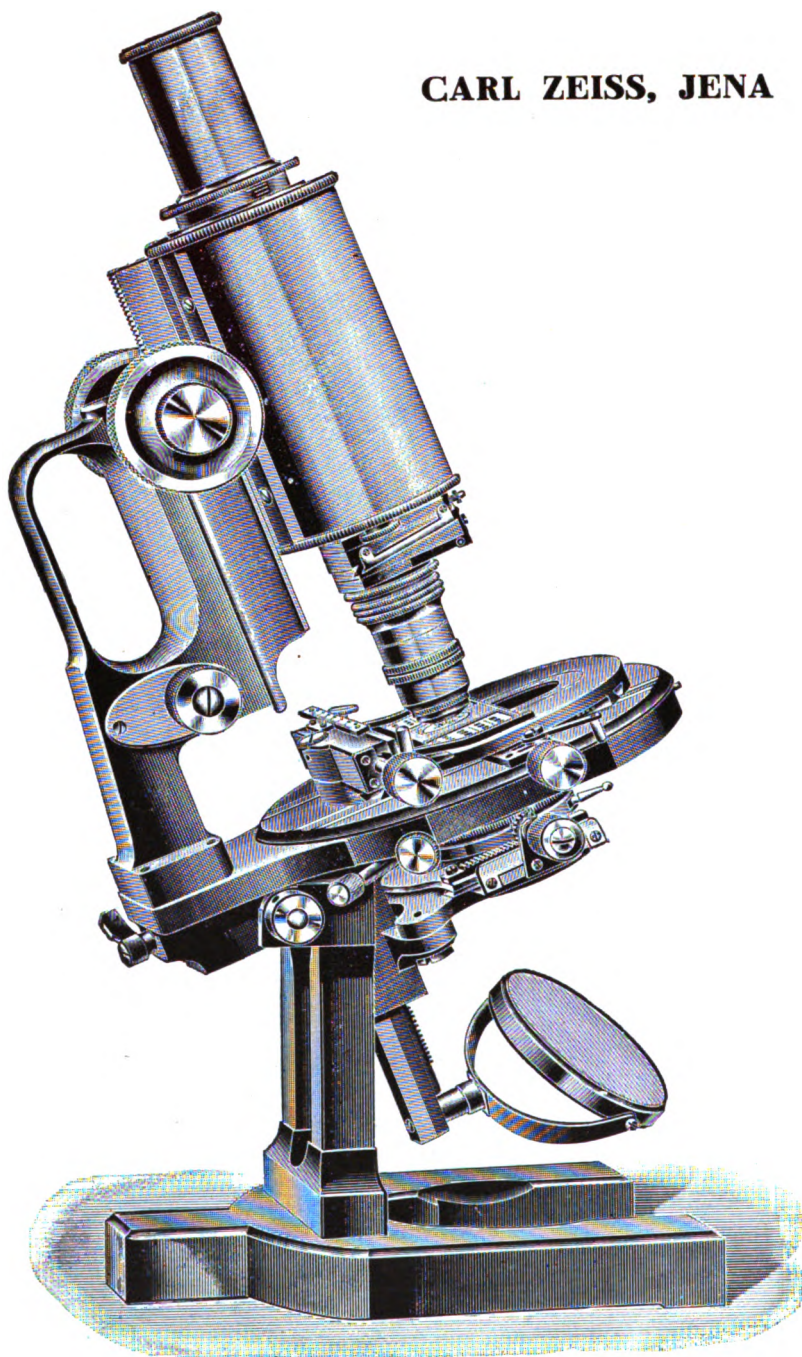


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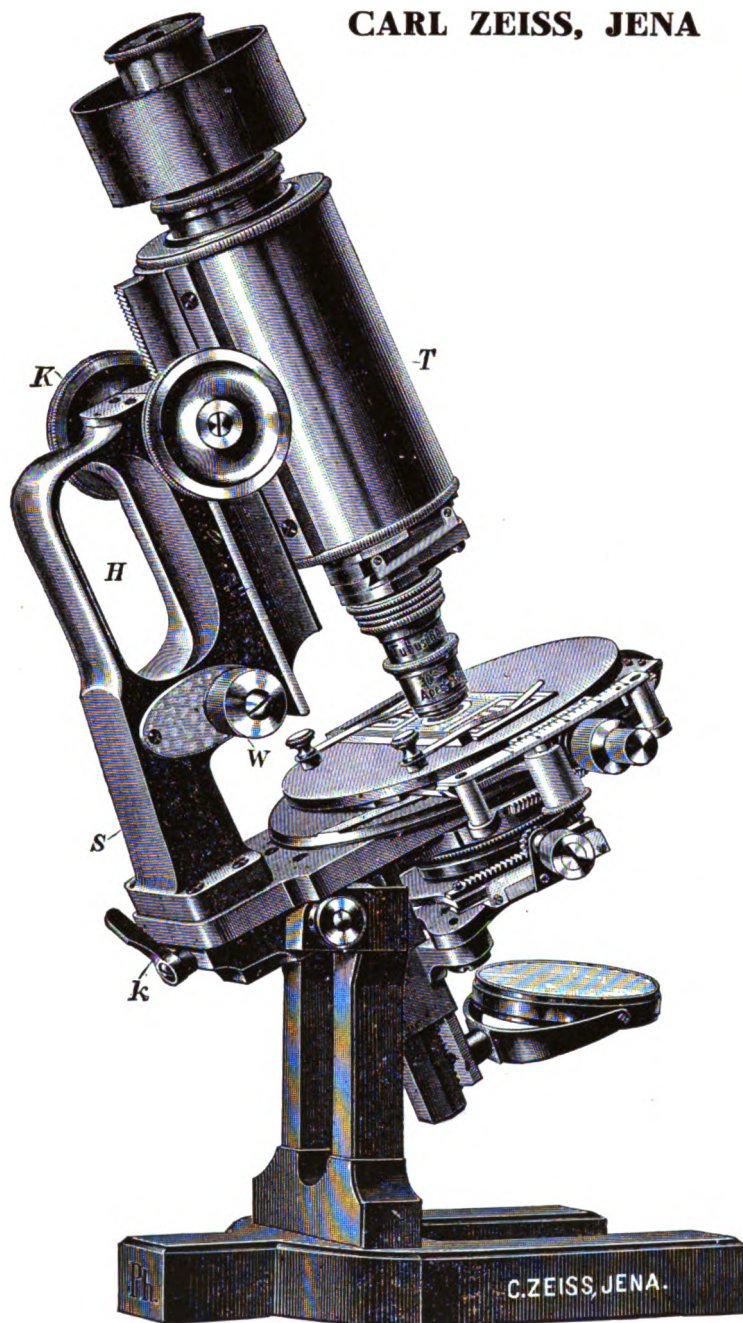
CARL ZEISS, JENA



($\frac{1}{2}$ Size.)

- *B1000. **Stand IB**, with large mechanical stage and Abbé illuminating apparatus No. 25, but without nosepiece, eyepiece or objectives, \$152.00
ditto, ditto, with swing-out Condenser, 161.50

CARL ZEISS, JENA



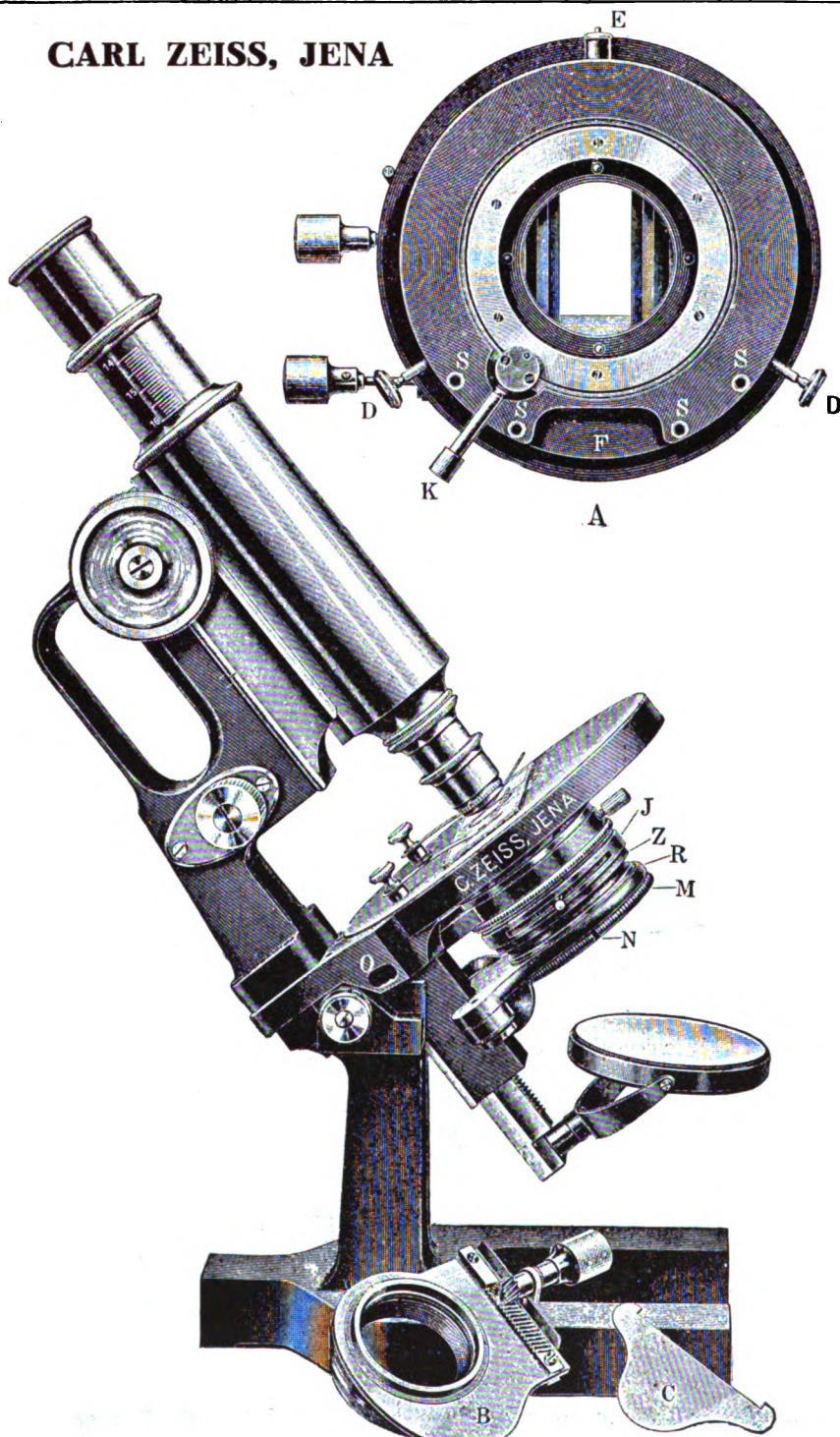
(½ Size.)

○*B1001. **New Photo-Micrographic Stand IC**, with Berger micrometer movement with **Micro-photographical Stage** and accessories: **Light-excluding Funnel, Adapting Rings for the Micro-Planars to screw in, Centring Stop and Dark Glass.**

A :—with ordinary Abbé Condenser,	\$158.00
B :—with swing-out Abbé Condenser	167.00

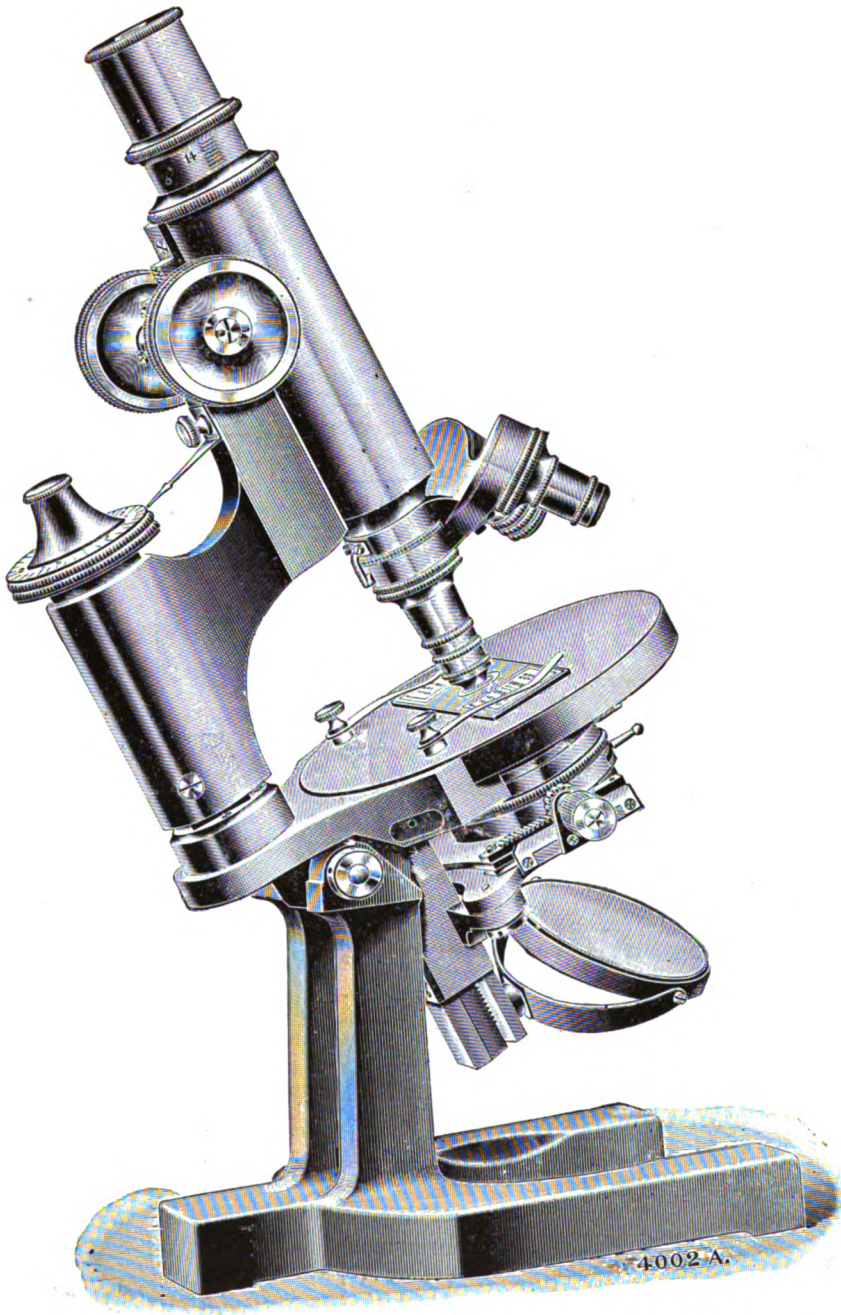
With large Mechanical Stage, and ordinary Abbé Condenser, 158.00

CARL ZEISS, JENA

B1002. ($\frac{1}{2}$ Size.)

- *B1002. **Stand III^D, New,** with revolving and centring vulcanite stage, Abbe's illuminating apparatus with ordinary condenser N.A. 1.40, but without nosepiece, eyepiece or objectives, \$110.00

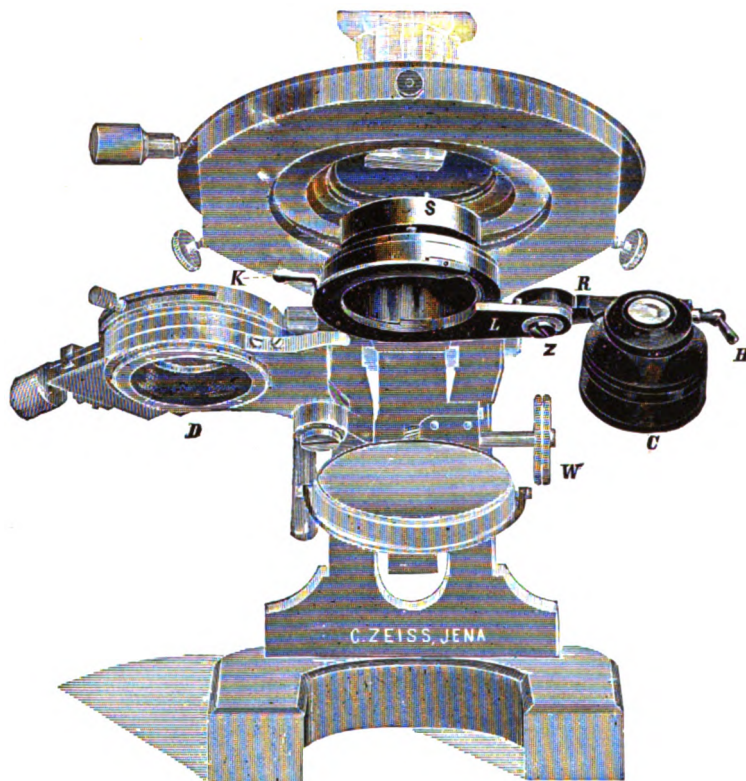
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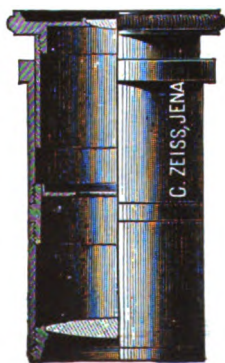
(½ Size.)

- *B1003. **Stand IVA**, with swing out condenser, round fixed vulcanite stage and cylinder diaphragm, but without nosepiece, eyepiece or objectives \$68.50

CARL ZEISS, JENA

B1004. ($\frac{1}{2}$ Size.)○*B1004. **Swing-out Condenser.**

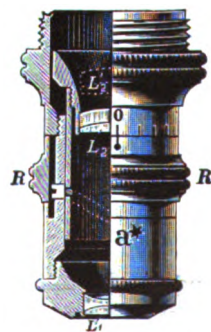
No. 27. (1.20 mm. apert.)	.	.	.	.	.	\$17.10
No. 28. (1.45 mm. apert.)	.	.	.	.	.	19.00



B1005.

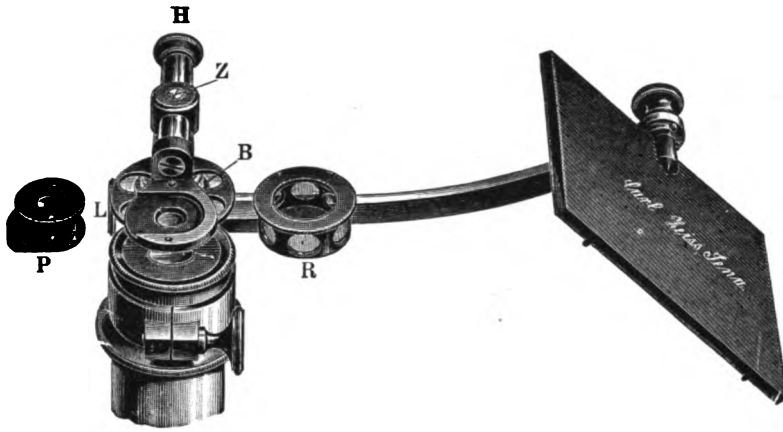
○*B1005. **Micrometer Eyepiece,**
laterally adjustable
by means of a screw,
\$15.20○*B1006. **Achromatic Objective, a*,** 43-29 mm.
focal length, \$15.20

By rotating the ring *RR*, the upper pair of lenses (*L₁*) may be moved into the top-most position, as indicated by the dotted lines (*L'₁*).



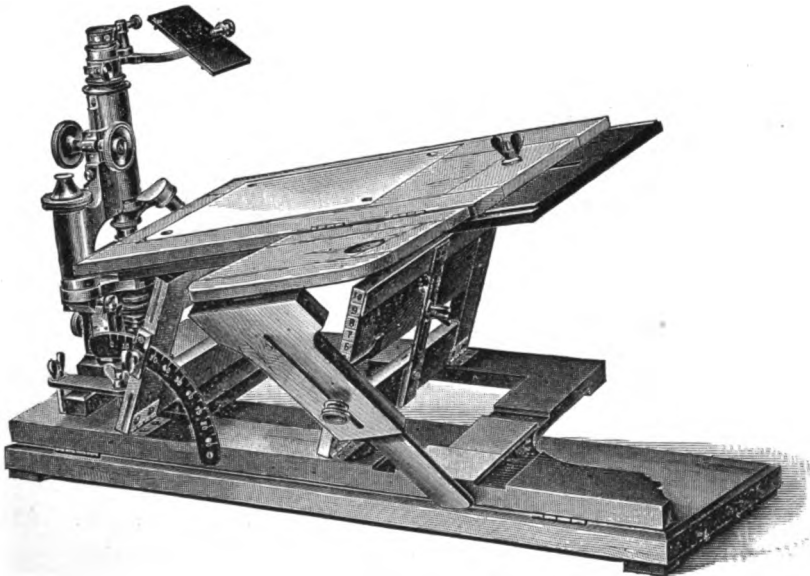
B1006.

CARL ZEISS, JENA



B1007.

○*B1007. **Abbe Drawing Camera**, large No. 111, latest modification, in case, \$22.80



B1008.

○*B1008. **Bernhard's Drawing Table**, No. 114, to which the microscope and drawing camera can be attached, with arrangement for inclining the microscope and the drawing-table together, \$19.75

CARL ZEISS, JENAB1009. ($\frac{2}{5}$ Size.)

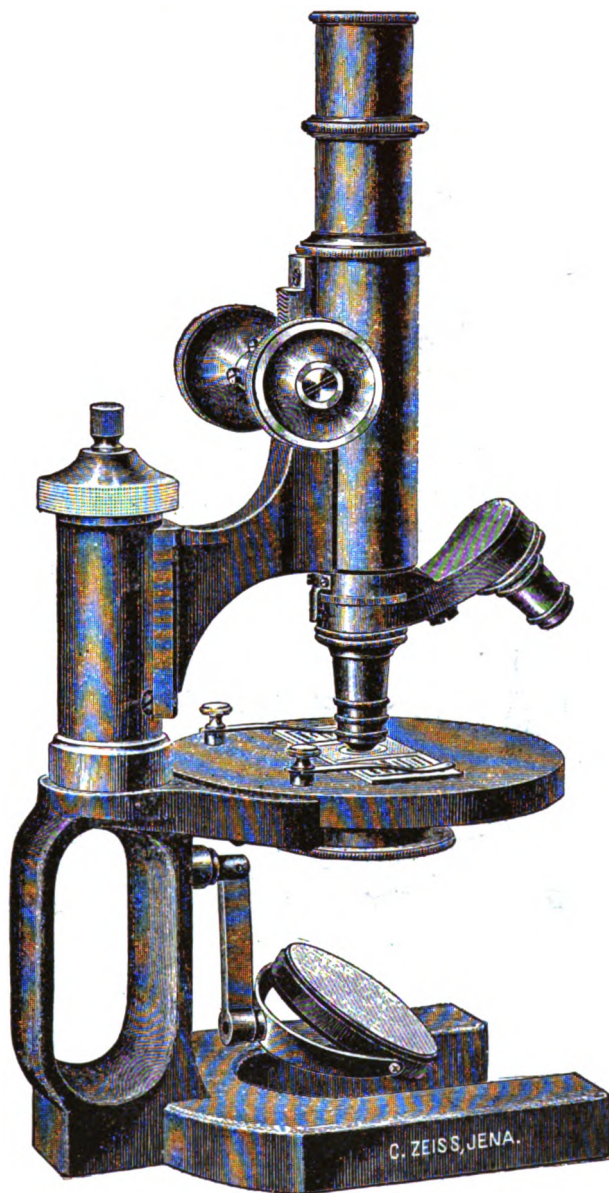
b. Upper body of stand X^a (as a "Dermatoscope") with vulcanite fork attached.

- *B1009a. **Greenough's Binocular Microscope X^a**, without objectives and eyepieces, in mahogany case, . . . \$74.00
- *B1009b. **Dermatoscope**, (upper part of stand X^a with vulcanite fork) . . . \$45.00

Unless ordered otherwise, we supply with above

1 pair of Huyghenian Eyepieces No. 2 and

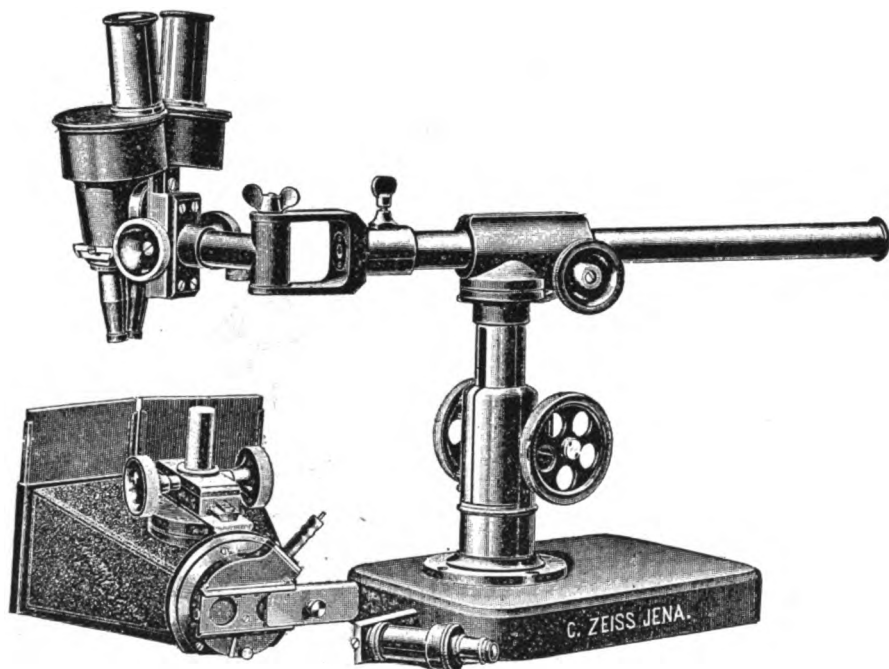
1 pair of Achromatic Objectives (a₂) for . . . \$22.00

CARL ZEISS, JENA

○*B1010a. **New Laboratory Stand V**, with rack and pinion movement, fixed large round stage, new convenient handle for carrying, in polished alderwood case, fitted with lock and key, without objectives, eyepieces and revolving nosepieces :

A :—with fixed stage and cylinder diaphragm, No. 21 \$38.00

C :—with fixed stage and condenser, num. Ap. 1.20,
in addition to an iris-diaphragm . . . 48.00

CARL ZEISS, JENA

B1010

○*B1010. **Braus-Druener Binocular Microscope X^b**, with
 universally movable stand, without objectives and
 eyepieces, in alderwood cabinet, \$99.00

Unless ordered otherwise we supply with above
 1 pair of Huyghenian Eyepieces No. 2 and
 1 pair of Achromatic Objectives (a₂) for \$22.00

CARL ZEISS, JENA.**HUYGHENIAN EYE-PIECES.**

Eye-piece No.....	1	2	3	4	5
Equivalent focus in mm.....	50	40	30	25	20
Eye-piece magnification.....	3	4	5.5	7	9

Price ○ \$..... Each **2.30**

Huyghenian Eye-pieces in pairs for Binocular stands, numbers as above, each pair ○ \$5.30
 In addition to above a so-called Orthomorphic Eye-piece is supplied for use with binocular microscopes, each pair ○ \$5.30

COMPENSATING EYE-PIECES.

	Searcher Eye-piece					
Eyepiece No.	2	4	6	8	12	18
Equivalent focal length in mm	90	45	30	22.5	15	10

Price ○ \$..... **7.60** **11.40** **9.50**

ACHROMATIC OBJECTIVES.

Designation	a ₀	a ₁	a ₂	a ₃	a*	aa	A	AA	B	C	D	DD	E	F
Equivalent focus in mm	45	39	37	28	43-29	26	15	17	12	7	4.2	4.3	2.8	1.8
Numerical Aperture ..						0.17	0.20	0.30	0.35	0.40	0.65	0.85	0.90	0.90
Price ○ \$..	4.55	4.55	4.55	4.55	15.20	10.25	7.60	11.40	11.40	11.40	13.30	19.00	32.80	28.50

DRY SERIES.

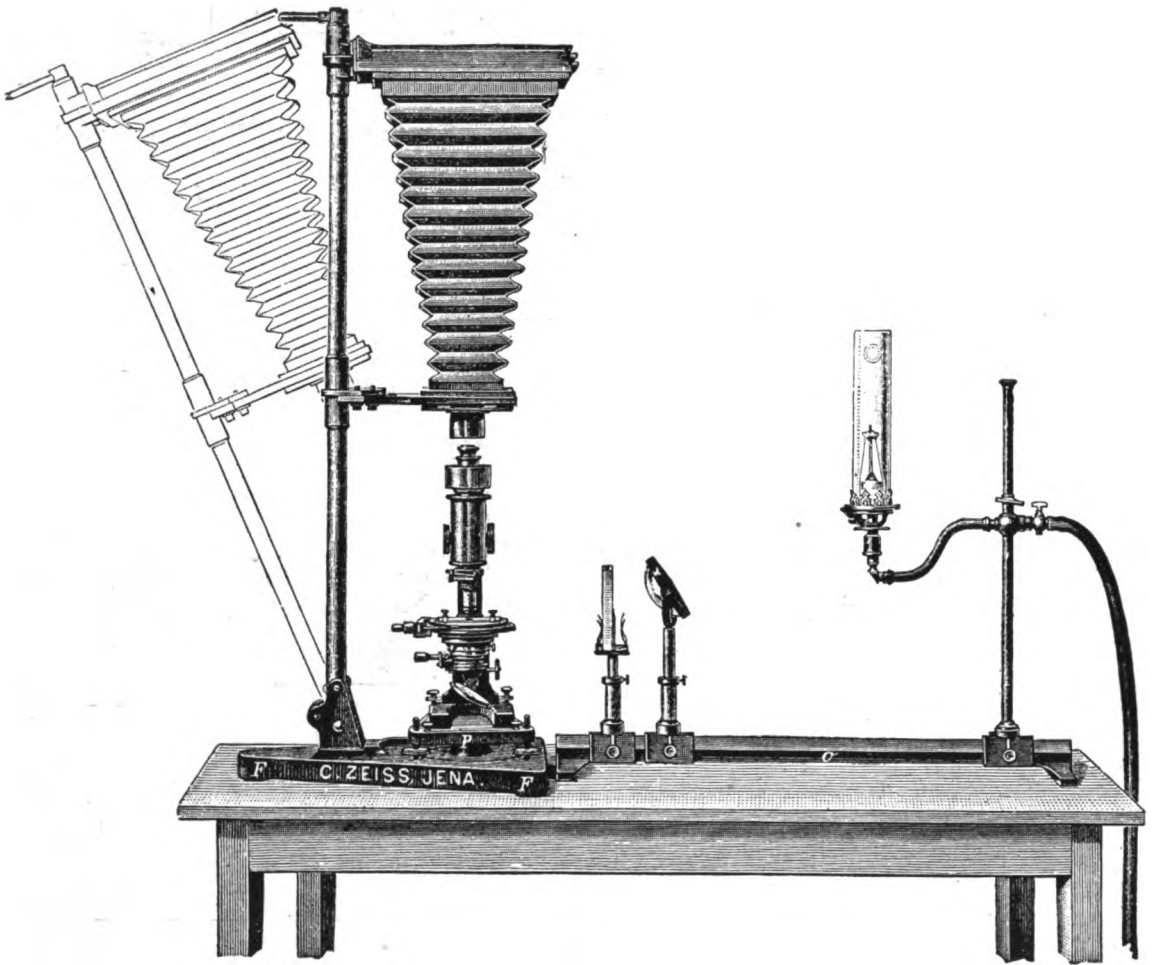
Designation	Pl. Searcher	D*	H	J	Water Immersion	1/12"	Homogenous Immersion
Equivalent focus in mm	25	4.4	2.5	1.8		1.8	
Numerical Aperture.....	0.11	0.75	1.18	1.18		1.30	
Price ○ \$.....	7.60	28.50	41.80	41.80		47.50	

Assorted pairs of Objectives for Binocular Microscopes supplied in a special form of setting and mounted in pairs on slides:

Designation ..	(55)	(a ₀)	(a ₁)	(a ₂)	(PI)
Price \$....	17.10				20.90

APOCHROMATIC OBJECTIVES.

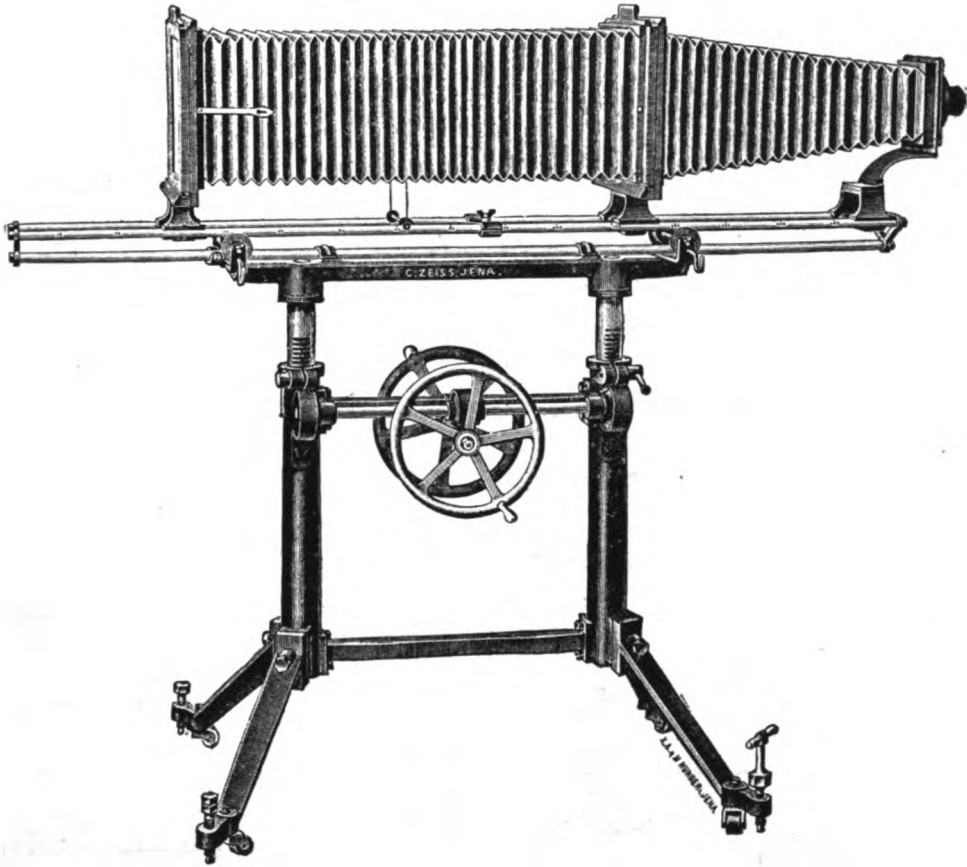
Designation and equivalent focus in mm.....	16	8	4	3	2.5	3	3	2	2	1.5
Numerical Aperture.....	0.30	0.65	0.95	0.95	1.25	1.30	1.40	1.30	1.40	1.80
Immersion	Dry	Dry	Dry	Dry	Water	Homog.	Homog.	Homog.	Homog.	Homog.
Price ○ \$.....	30.40	38.00	53.20	60.80	95.00	114.00	152.00	114.00	152.00	133.00

CARL ZEISS, JENA

B1011.

- *B1011. **Combined Horizontal and Vertical Photomicrographic Camera**, with one double dark slide for plates of 21×21 cm. ($8\frac{1}{4}'' \times 8\frac{1}{4}''$), two focusing screens and two camera fronts, one of the latter fitted with light-tight adapter; bellows extension = 1^m (40'') Δ \$57.00

CARL ZEISS, JENA



B1012.

○*B1012. **Large Photomicrographic Camera**, with one double dark slide for plates 24×24 cm. ($9\frac{1}{2}'' \times 9\frac{1}{2}''$); two focusing screens and two camera fronts, one of the latter fitted for light-tight connection with the microscope; bellows extension = $1,50^m$ (60''), cast iron stand adjustable in height by rack and pinion, rollers and leveling screws on the four feet Δ \$118.00

For photomicrographic accesories and appliances for microscopy in ultra-violet light and ultra-microscopic particles ef 0.275η wave length, see special Zeiss' list.

For a complete line of Carl Zeiss' Goods see special list, sent on application.

CARL REICHERT, VIENNA

B1013.

○*B1013. **Elmer & Amend's Special Combination. Stand III^B.** Inclinal, is provided with Abbe condenser, iris diaphragm, triple nosepiece, three objectives (one of which is a $\frac{1}{4}$ th inch oil immersion lens) and two Huyghenian Eyepieces, giving magnifications from $50\times$ to $1200\times$.

Specially adapted for blood and water examinations.

The best stand for the general practitioner. Special . . . \$100.00

Reichert's special catalogue on Microscopes and Accessories sent on application.

SPENCER MICROSCOPES

It is claimed for the **SPENCER MICROSCOPES**, that they excel in all the important points of construction, in solidity and steadiness, in precision of adjustment and in all the elements of durability.

They are furnished in all the usual types of Professional, Laboratory, College and School Stands and all are equipped with the famous

SPENCER OBJECTIVES

Every one of which is corrected and tested under the most careful scientific supervision and by special scientific methods which insure a high degree of perfection and uniformity of excellence.

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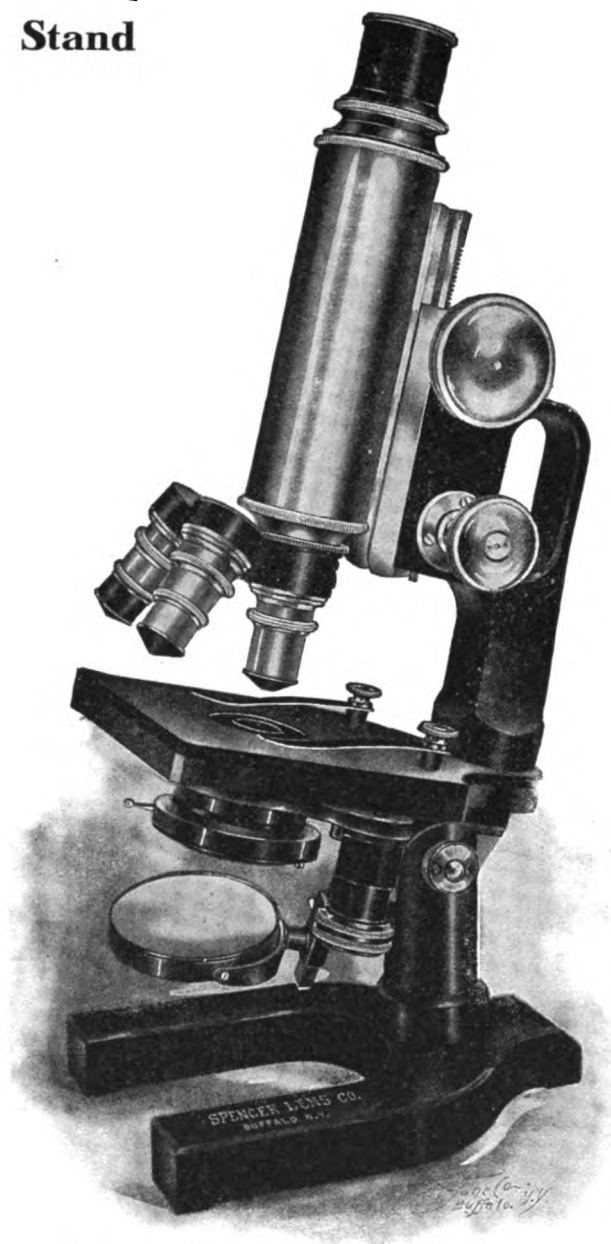
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FOR

SPENCER LENS Co.

Special catalogue with a complete line of Spencer Microscopes and Accessories on application.

**THE
SPENCER
No. 26 Stand**



- *B1014. The Spencer Lens Company's New No. 26 Stand, with special fine adjustment and handle for carrying.

O*B1014.

Spencer Stand No. 26.

This microscope is a modification of our old No. 20, and to all outward appearances is the same. It has the rigid arm and handle for carrying it, and is provided with our new fine adjustment B;—also the improved rack and pinion. The stage is large (95 mm. broad) and the upper surface is completely covered with vulcanite. The distance from the optical axis to the base of the arm is 55 mm. The condenser is focussed by means of the quick screw substage and is held in place by the friction collar. Our new drop-swing condenser may be substituted if desired. This instrument with its moderate price places within the reach of every laboratory or individual a thoroughly reliable microscope with this new superior type of fine adjustment. The sales of this microscope and the satisfaction it has given have proven its worth. It is now even more desirable, because:—It has the new fine adjustment B. It has the rigid arm with handle for carrying it. It has the improved rack and pinion. It has a large vulcanite covered stage. It has a quick screw substage the threads of which are protected from dust, to which the drop-swing condenser may be added. It has in all details received the careful attention given the higher priced instruments. It is the only microscope of this type put out at a price within the reach of all desiring a first class high grade microscope.

No.	Abbe Condenser	Nosepiece	Achromatic Objectives Equiv. Foc. mm.	Huyghenian Oculars	Prices, Net.
26A	.	.	16, 4	8x,	\$51.50
26B	.	Double No. 460	16, 4	8x,	55.50
26C	.	.	16, 4	4x, 8x	53.00
26D	.	Double No. 460	16, 4	4x, 8x	57.00
26E	N. A. 1.20	Double No. 460	16, 4	8x,	63.00
26F	N. A. 1.20	Double No. 460	16, 4	4x, 8x	64.50
26G	N. A. 1.20	.	16, 4	.	.
26H	N. A. 1.20	Triple No. 465	2 Oil Im. 16, 4 2 Oil Im.	4x, 8x	84.50 90.00

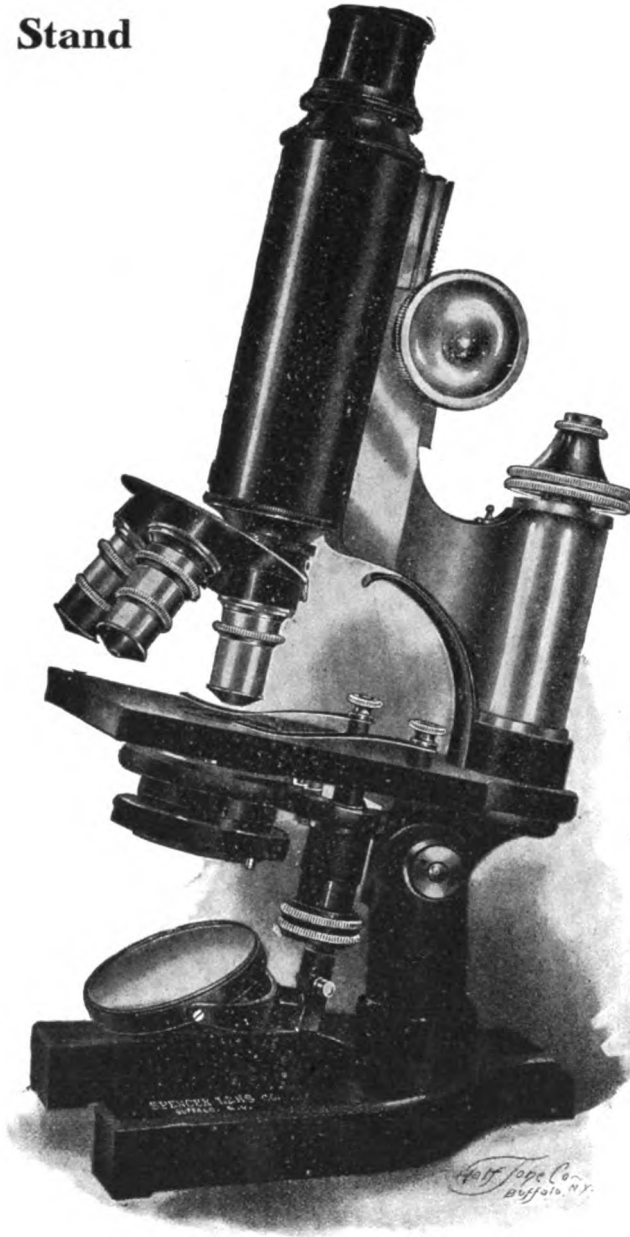
Spencer Stand, No. 20.

Like No. 26 with greater working distance (68 mm from optical axes to the base of the arm.) Fitted with new drop-swing condenser. Black finish.

No.	Abbe Condenser N. A. 1.20	Nosepiece	Objectives Equiv. Foc. mm	ACHROMATICS		APOCHROMATICS	Prices Net
				Huyghe- nian Oculars.	Prices Net.	Compens. Oculars.	
20A	Abbe Condenser N. A. 1.20	.	16, 4	8x	\$69.00	6x, 9x	\$150.50
20B		Double No. 450	16, 4	8x	73.00	6x, 9x	154.50
20C		.	16, 4	4x, 8x	70.50	6x, 9x, 12x	162.50
20D		Double No. 450	16, 4	4x, 8x	74.50	6x, 9x, 12x	166.50
20H		Triple No. 455	16, 4 2 oil im.	4x, 8x	100.00	6x, 9x, 12x	265.00

Specially adapted to **critical laboratory and professional work.**

**THE
SPENCER
No. 40 Stand**



- *B1015. The Spencer Lens Company's New No. 40 Stand, a very desirable microscope for college and hospital use; especially adapted for practicing physicians, bacteriologists, etc. With trim arm for carrying.

Spencer Microscope No. 40.

○*B1015.

No 40 has proven itself to be one of the most popular of microscopes. Its completeness for ordinary laboratory work, and for physician's use, combined with its moderate price has made it one of the standards. The new No. 40 supplied with our new adjustable and registering mechanical stage No. 490 leaves nothing to be desired for blood work, bacteriological diagnosis, and general laboratory requirements. The edges and top of the very large stage (95 mm. broad) are covered with vulcanite. The distance from the optical center to the base of the arm is 67 mm. Immediately beneath the arm, independent of it, and following the curve of its lower edge is a neat, unobtrusive handle which provides a means for carrying the instrument safely without injury to the fine adjustment. The substage is the quick screw appliance with friction collar. The salient points in which this microscope excels are:—The large vulcanite stage, covered sides and top. The greatest distance of any from the optical axis to the base of arm. The trim arm for carrying the microscope. The new indicator for the graduated micrometer head. The new coarse adjustment. The superior fine adjustment. The general grace and beauty of the microscope. The permanence of the finish.

No.	Abbe Condenser	Nosepiece	Achromatic Objectives Equiv. Foc. mm.	Huyghenian Oculars	Prices, Net.
40A	. . . . .		16, 4	8x,	\$36.50
40B	. . . . .	Double No. 450	16, 4	8x,	40.50
40C	. . . . .		16, 4	4x, 8x	38.00
40D	. . . . .	Double No. 450	16, 4	4x, 8x	42.00
40E	N. A. 1.20	Double No. 450	16, 4	8x,	48.00
40F	N. A. 1.20	Double No. 450	16, 4	4x, 8x	49.50
40G	N. A. 1.20	. . . . .	16, 4		
40H	N. A. 1.20	Triple No. 455	2 Oil Im. 16, 4 2 Oil Im.	4x, 8x 4x, 8x	69.50 75.00

The 5 mm. (1-5 in.) or the 3 mm. (1-8 in.) objective will be supplied whenever desired, in place of the 4 mm. (1-6 in.) named above.

Prices include polished hardwood cabinet, with lock and key.

Spencer Microscope No. 46.

○B1015a.

This microscope is remarkably well adapted to the requirements of the physician and to general laboratory needs. It is large and substantially made, entirely of brass. The stage is 95 mm. broad and the top entirely covered with vulcanite. The distance from the optical axis to the pillar is 55 mm. as great as that on any ordinary microscope put out heretofore.

The substage consists of the quick screw movement with the arm, and friction collar for holding the condenser. The drop-swing condenser may be added and the rack and pinion substage substituted for the quick screw arrangement.

The handle for carrying the instrument, like that on No. 40 can be added at a slight advance in price.

No.	Abbe Condenser	Nosepiece	Achromatic Objectives Equiv. Foc. mm.	Oculars	Prices, Net
46A	. . . . .		16, 4	8x	\$34.50
46B	. . . . .	Double No. 460	16, 4	8x	38.50
46C	. . . . .		16, 4	4x, 8x	36.00
46D	. . . . .	Double No. 460	16, 4	4x, 8x	40.00
46E	N. A. 1.30	Double No. 460	16, 4	8x	46.00
46F	N. A. 1.30	Double No. 460	16, 4	4x, 8x	47.50
46G	N. A. 1.80	. . . . .	16, 4		
46H	N. A. 1.80	Triple No. 465	2 Oil, Im. 16, 4 2 Oil, Im.	4x, 8x 4x, 8x	67.50 73.00

Spencer Microscope Stand No. 50.

○B1016.

This stand is in all respects very similar to No. 46. It is made of brass throughout, and with the same care and precision. It is slightly smaller and the micrometer head is not graduated. In the place of the quick screw substage a simple collar, or ring, is attached directly to the under side of the stage. The condenser may be focused within narrow limits by sliding in this collar. A small iris-diaphragm is provided which comes flush with the upper surface of the stage. The top of the stage is entirely covered with vulcanite. The instrument will withstand severest laboratory usage. It has our dust proof fine adjustment. The micrometer head cannot be removed and the loose pin forming a frictionless bearing cannot get out of place. The specially cut threads and split nut insure a permanently smooth movement. Objectives need not be injured, as the fine adjustment cannot force them when they rest on the cover glass.

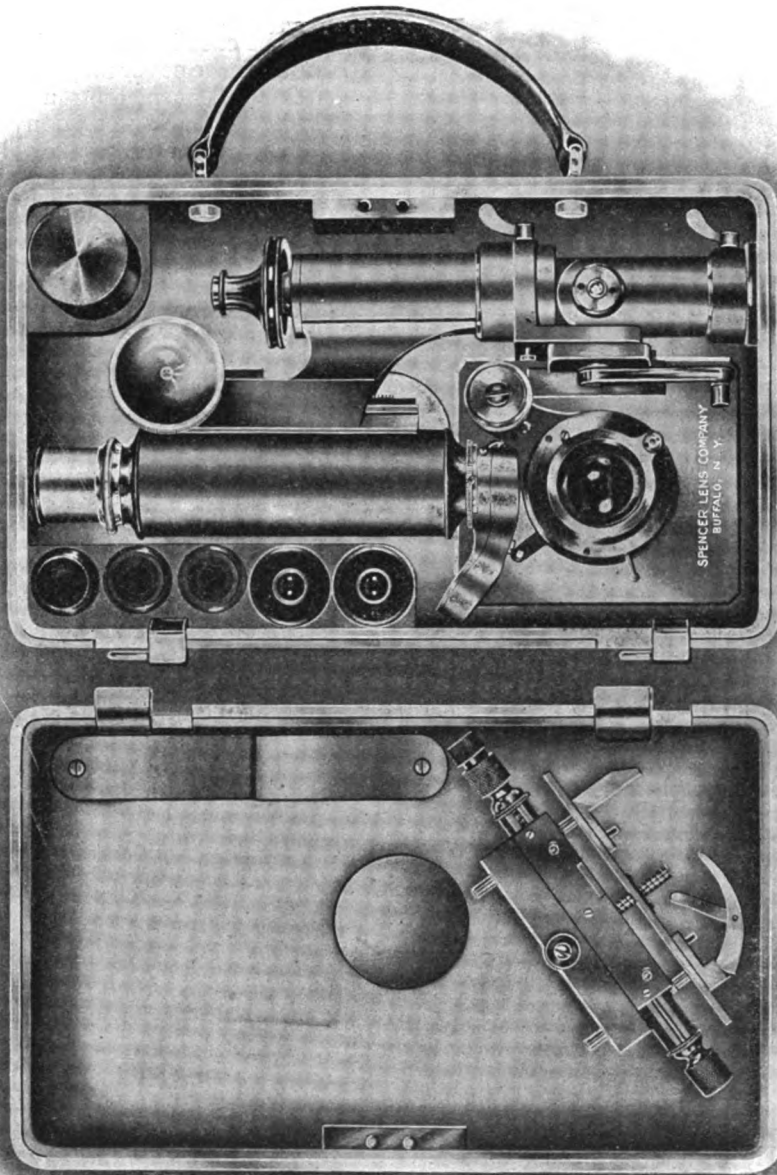
PRICES.

No. 50 A, with 1 eyepiece, 16 mm. (2-3 in.) and 4 mm. (1-6 in.) objectives (par-focal), with cylinder diaphragm	-	-	-	\$29.50
No. 50 B, same as above, with double nosepiece	-	-	-	33.50
No. 50 C; with 2 eyepieces, 16 mm. (2-3 in.) and 4 mm. (1-6 in.) (par-focal) objectives, with cylinder diaphragm	-	-	-	31.00
No. 50 D, same as above, with double nosepiece	-	-	-	35.00
No. 50 E, with 1 eyepiece, 16 mm. (2-3 in.) and 4 mm. (1-6 in.) objectives, Abbe Condenser with its iris diaphragm and double nosepiece	-	-	-	41.00
No. 50 F, same as above, with 2 eyepieces	-	-	-	42.50
No. 50 G, with 2 eyepieces, 16 mm. (2-3 in.) and 4 mm. (1-6 in.) dry, and 2 mm. (1-12 in.) oil-immersion objectives (par-focal), Abbe Condenser with its iris diaphragm	-	-	-	64.50
No. 50 H, same as above, with triple nosepiece	-	-	-	70.00

The 5 mm. (1-5 in.) or the 3 mm. (1-8 in.) objective will be supplied whenever desired, in place of the 4 mm. (1-6 in.) named above.

Prices include polished hardwood cabinet, with lock and key.

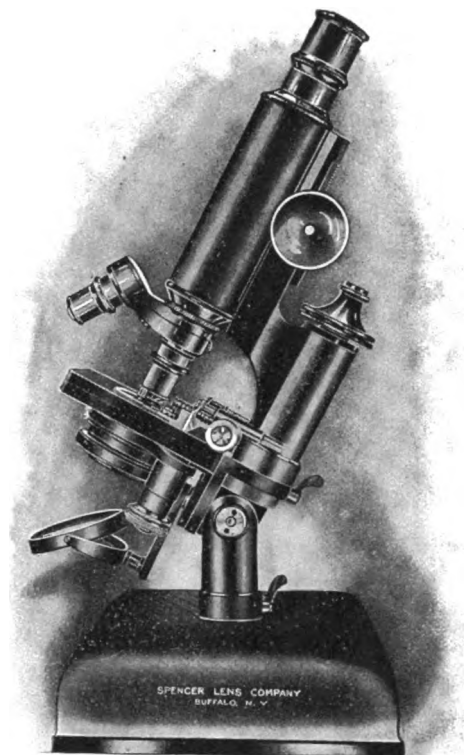
The Spencer No. 60 Folding Stand. TRAVELING MICROSCOPE.



○*B1017.

TRAVELLING MICROSCOPE No. 60.

Patented February 23, 1904.



○*B1017.

This improved traveling microscope with all its accessories fits compactly in an aluminum case with rounded corners 25x15x8 cm., the whole (including Mechanical Stage) weighing only 10 $\frac{3}{4}$ pounds.

The case is so made that when opened the cover may be quickly detached, furnishing a perfectly steady and very convenient substitute for the ordinary heavy base, thus reducing the weight to be carried by nearly three pounds.

The microscope pillar slips into a bronze metal slot and is instantly locked by an eccentric clamp, doing away with the annoyance and delay always connected with the use of a screw fastening. A similar bronze-metal slot inside the case holds the instrument firmly in place. By this means the microscope is very easily and quickly set up for use, or as quickly replaced in the carrying case.

In all other respects the instrument is identical with the

No. 46 Stand having the same general construction and the same illuminating apparatus. The draw tube is not cut off at the top, as in other traveling microscopes, but will permit the use of the camera lucida or other attachments. The rubber-covered stage 9.7x8.7 cm. is swivelled on a solid center so as to fold back when the instrument is packed in the case.

The bottle of immersion oil is protected in a nickel plated box, objectives and oculars are held in place by cloth-covered spring plates and suitable provision is made for safely carrying the Mechanical Stage, when it is desired, in the cover of the case.

For laboratory purposes a separate bronze base can be supplied. In use this outfit is practically identical with our No. 46 Stand

PRICES.

No. 60 A Stand, with Abbe Condenser, iris diaphragm and double nosepiece, in traveling case without other accessories	- net	\$70.00
No. 60 F with 2 eyepieces, 16 mm. (2-3 in.) and 4 mm. (1-6 in.) objectives (par-focal), Abbe Condenser, iris diaphragm and double nosepiece	- - - - - net	92.00
No. 60 H, with 2 eyepieces, 16 mm. (2-3 in.) and 4 mm. (1-6 in.) dry and 2 mm. (1-12 in.) oil-immersion objectives (par-focal), Abbe Condenser, iris diaphragm and triple nosepiece	- - - - - net	120.00
Separate Bronze Base for laboratory use	- - - - -	5 00
Separate Japanned Iron Base for laboratory use	- - - - -	2 00

For price of Mechanical Stage No. 485 see page 31.

SPENCER LENS COMPANY'S ACHROMATIC OBJECTIVES

	No.	Equivalent Focus		Num. Ap.	Working Distance*	Diameter of the real field†	(-)Price	
		mm.	inches approx.		With 160 mm. tube length and 4 × mm. eyepiece mm.		Fixed Mount	Adjust. Mount
Dry Objectives	B1018	40	1 3/4	0.10	50.0	6.3	\$5.00	
	B1019	32	1 3/8	0.10	37.0	4.7	5.00	
	B1020	80-82 variable	1 3/8 to 1 7/8	—	25.0	15.0	22.25	
				—	2.0	8.0		
	B1021	16	2/3	0.30	5.0	2.1	5.50	
	B1022	12	1/2	0.40	1.0	1.4	9.00	
	B1023	8	1/3	0.50	1.5	1.0	9.00	
	B1024	5	1/4	0.70	0.50	0.55	9.00	
	B1025 Long Working Distance	4	1/4	0.66	0.60	0.40	9.00	
	B1026 High Aperture	4	1/4	0.85	0.40	0.40	9.00	
Water Immersion		8	1/8	0.85	0.30	0.30	9.00	20.00
	B1027	8	1/8	1.15	0.22	0.30	22.50	20.00
	B1028	2	1/16	1.30	0.16	0.22	30.00	26.75
Homo. Oil Immersion	B1029	1.5	1/16	1.80	0.10	0.17	44.50	

* Working distance is the distance between the front lens and the cover glass.

† Real field is the diameter of the circular area seen through the microscope and measured in the plane of the object.

REVOLVING NOSEPIECES



B1030.



B1031.

For quickly changing from one objective to another. Made with Society Screw and of extremely accurate construction. A stop (or click) holds each objective in position.

- O*B1030. Double Nosepiece. Heavily Nickel-plated - - - \$4.00
 O*B1031. Triple Nosepiece. Heavily Nickel-plated - - - 5.50

SPENCER LENS COMPANY'S HUYGHENIAN EYEPieces.

B1032—B1036.

These eyepieces are made to fit the standard tube of the Royal Microscopical Society and are interchangeable with those of European makes.

Cat. No.	B1032	B1033	B1034	B1035	B1036
Power	8×	4×	6×	8×	9×
Equivalent Focus.....	50 mm. (2 in.)	40 mm. (1½ in.)	30 mm. (1¼ in.)	25 mm. (1 in.)	20 mm. (¾ in.)
Price ○ \$	\$1.50	1.50	1.50	1.50	1.50

For ordinary purposes we recommend the use of the 3×, 6× and 9×, or if but two are chosen, we recommend the 4× and 8×.

COMPENSATING EYEPieces.

B1037—B1041.

Cat. No.	B1037	B1038	B1039	B1040	B1041
Power.....	1×	3×	6×	9×	12×
Price — \$.....	Each 8.00			Each 12.00	

When furnished with adjustable eye lens, extra large field lens and iris diaphragm add \$7.00 to prices above given.

APOCHROMATIC OBJECTIVES.

B1042—B1047.

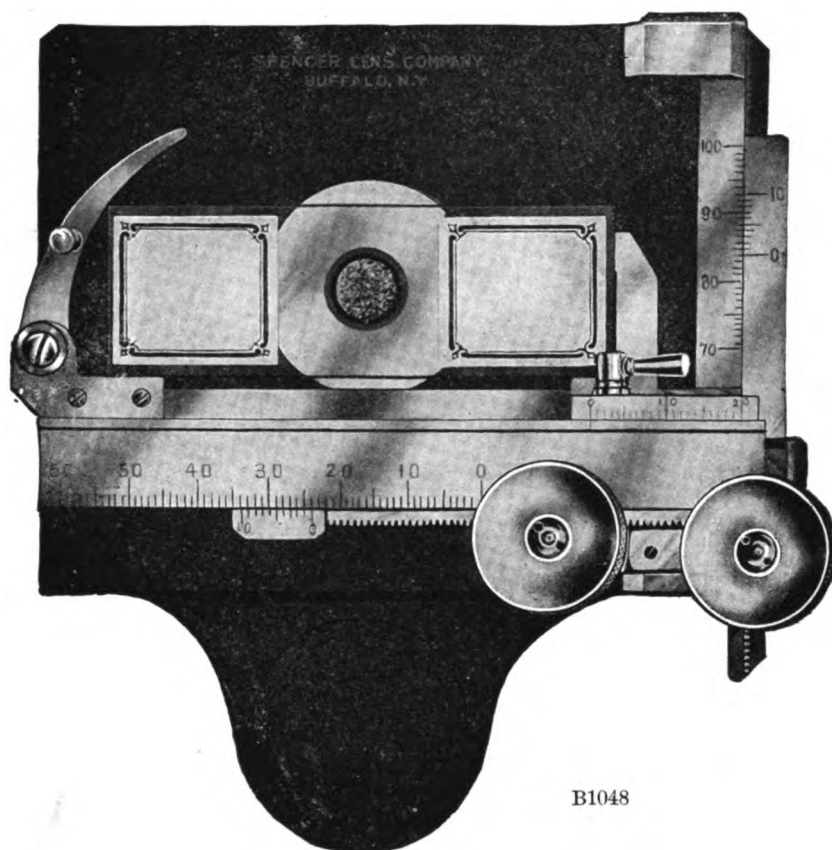
Crt. No.	Equivalent Focus		Num. Ap.	Initial * Magnification	160 mm. tube length and 6× Comp. eyep.		Price, Net
	mm.	Inch. Approx.			Work-** ing Distance mm.	Real*** Field mm.	
B1042	16	$\frac{2}{3}$	0.90	15.5	1.5	1.5	Fixed Mt. \$28.00
B1043	8	$\frac{1}{3}$	0.60	31	1.00	0.75	" " 35.00
B1044	4	$\frac{1}{4}$	0.95	63	0.19	0.32	Adj. Mt. 49.00
B1045	3	$\frac{1}{4}$	0.95	88	0.14	0.24	" " 55.00
B1046	2	$\frac{1}{4}$	1.30	125	0.15	0.16	Fixed Mt. 100.00
B1047	1.5	$\frac{1}{4}$	1.30	167	0.10	0.12	" " 120.00

*Initial magnification is the magnification of the object if the objective is used as a magnifier. It is found by dividing 250 mm. (the distance of accommodation for a normal eye looking at a small object) by the focal distance of the objective for instance $250/16 = 15.5$ the initial magnification of an object of 16 mm. focal distance.

**Working distance is the distance between the front lens and the cover glass.

***Real field is the diameter of the circular area seen through the microscope and measured in the plane of the object.

SPENCER LENS COMPANY'S ATTACHABLE MECHANICAL STAGE No. 485.

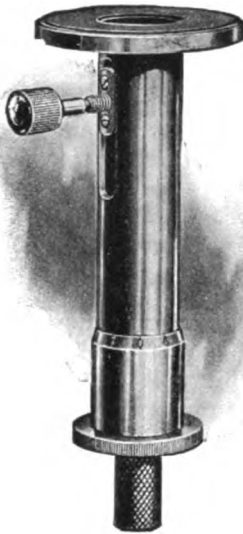


B1048

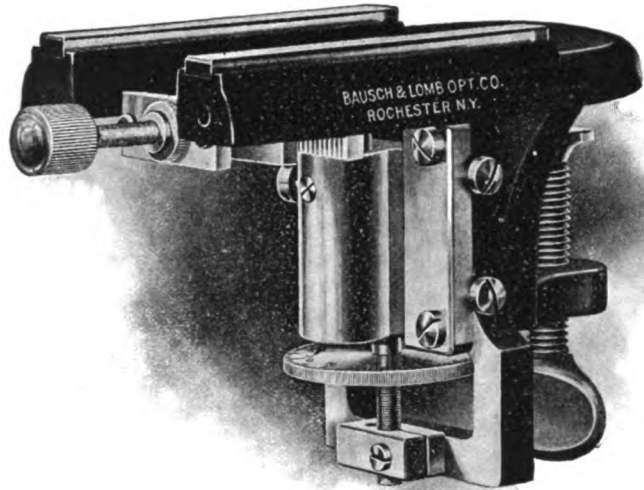
An important advantage in this new Mechanical Stage lies in the fact that it may be instantly and firmly attached by means of its clamps to any rectangular microscope stage that has a side length of 7.5 cm. or more, and that it may be just as quickly removed. A stop at the front always insures its return to the same position on the microscope stage, so that should work be interrupted and the Mechanical Stage removed, when it has been replaced any part of the specimen under observation may be instantly found by noting the vernier readings. The vernier of the lateral movement instead of being set underneath the arm of the stand is placed slightly to one side, where it can be easily read. The movements of this Mechanical Stage are by diagonal rack and pinion and are entirely firm and reliable, permitting the most delicate adjustments. The range of movement is large in both directions, giving 63 mm. lateral motion and a vertical movement of 35 mm. The slide rests upon the surface of the microscope stage and is held in place at one end by a spring clip and at the other by an adjustable stop, permitting the use of slides of varying sizes. As will be seen by the cut, the milled heads are placed close together so that they may be easily moved by the fingers of one hand, and their position relative to each other always remains unchanged, leaving the other hand free for the fine adjustment of the microscope.

○*B1048. Price, complete, heavily nickel-plated, in case, - - \$16.00

MICROTOMES

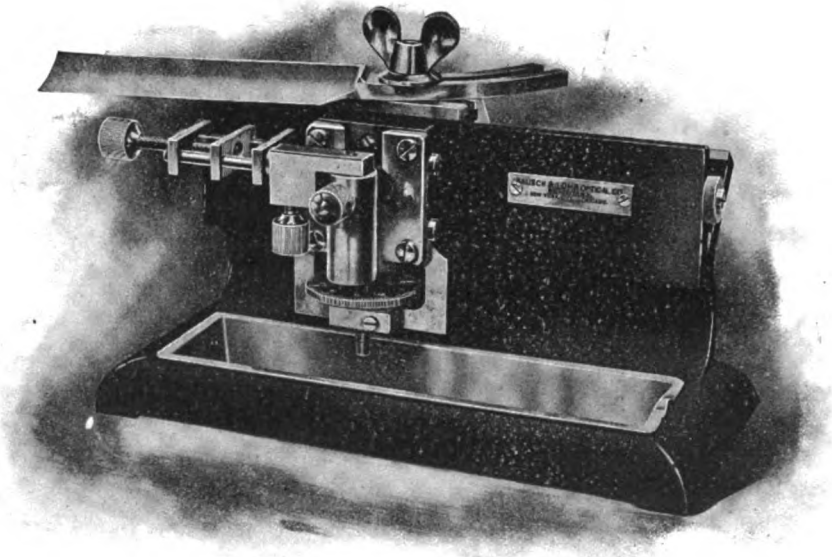


B1049.



B1050.

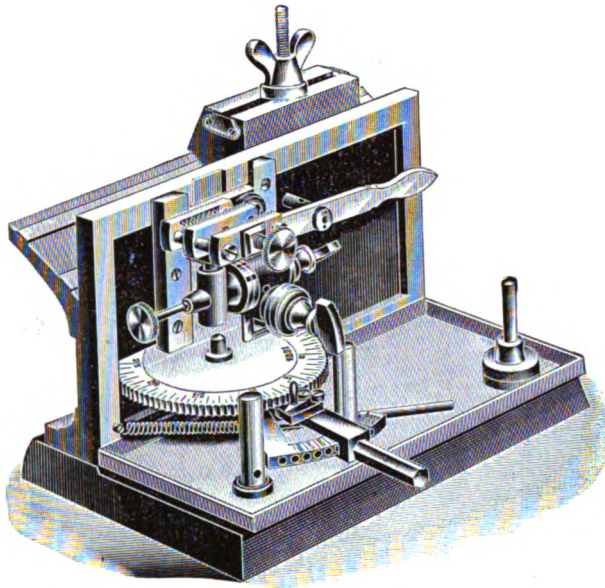
- *B1049. **Hand Microtome**, especially suitable for rapid class-work, cutting sections, down to 10μ - - - \$4.50
- *B1050. **Simple Microtome**, with clamp to attach to table, cutting sections, down to 5μ - - - 10.00



B1051.

- *B1051. **Student Microtome**, adaptable for CO₂ or Ether Freezing, complete with adjustable clamp and shanked or plain knife of best forged steel, cutting edge 9 cm. long, with knifeholder (knife and holder in velvet lined case); microtome cutting sections, down to 5μ - - - \$16.00

MICROTOMES



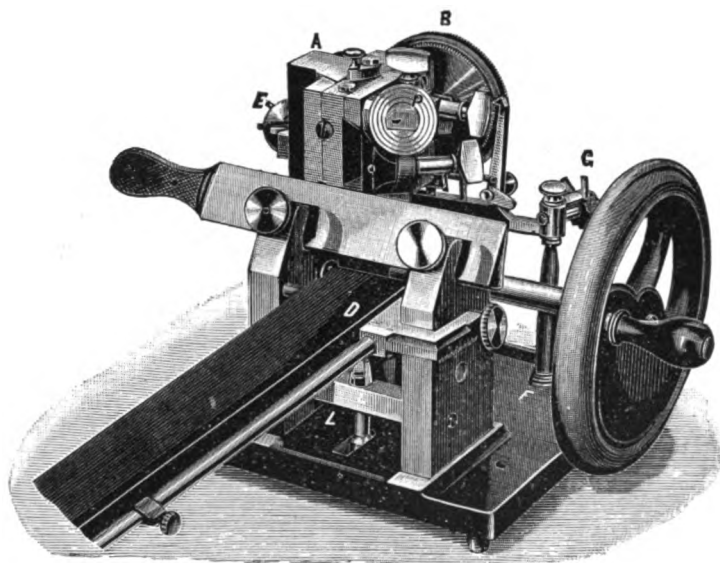
B1053

- B1052. **Microtome**, Schanze's, improved form, Model B, with heavy prismatic razor-slide and object-holder so arranged that the objects may be cut in any position ; complete with clamp, paraffine table, freezing apparatus and razor, in case.

a)	Length of razor course, 17 cm.,	-	-	-	△\$65.00
b)	" " " 20 "	-	-	-	72.50
c)	" " " 24 "	-	-	-	△ 85.00
d)	" " " 30 "	-	-	-	△110.00
e)	" " " 40 "	-	-	-	△135.00

- *B1053. **Microtome**, same as B1052, but with adjustable snap arrangement, - - - - - additional, \$10.00

MICROTOMES



B1054.

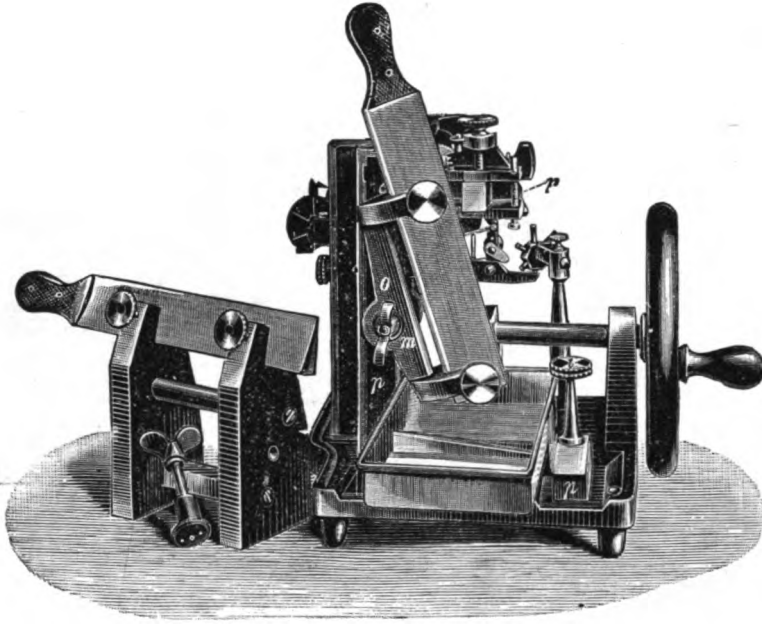
- *B1054. **Microtome**, Minot's, with automatic movement; furnishing sections of 6 various thicknesses, from $\frac{1}{100}$ to $\frac{1}{1000}$ mm., with 1 set of cement plates of 20, 30, 40 mm. diameter.

Price, in plain wooden box,	-	-	-	△\$90.00
Polished wooden cabinet, with lock, key and handle,				7.50
Knife for same, in case,	-	-	-	6.50

- B1055. **Microtome**, Minot's Model II., with automatic fine adjustment; furnishing sections from $\frac{1}{100}$ to $\frac{1}{1000}$ mm., and from 1 to 6 microns; with 1 set of cement plates of 20, 30, 40 mm. diameter.

Price, in plain wooden box,	-	-	-	-	\$115.00
Polished wooden cabinet, with lock, key and handle,					8.00
Knife for same, in case,	-	-	-	-	6.50

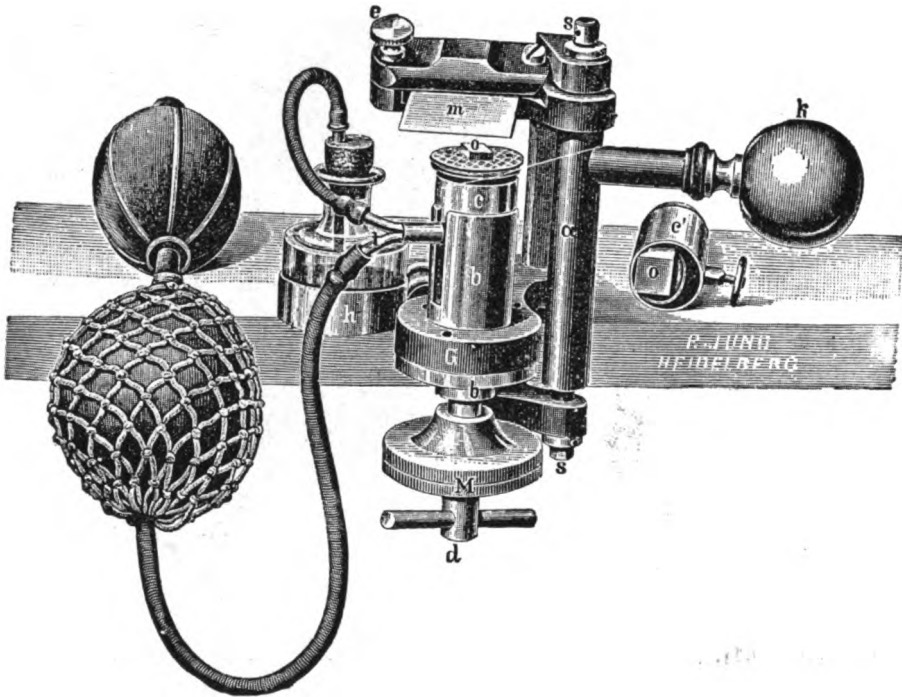
MICROTOMES



B1056.

- *B1056. **Microtome**, Minot's improved form, for paraffine as well as Celloidin preparations, with automatic fine adjustment, double spring catch and additional knife holder for holding knife in oblique position, furnishing sections from $\frac{1}{2}$ to 40 microns ; with 1 set of cement plates and 1 object clamp.
- | | |
|--|-----------|
| Price, in plain wooden box, - - - - | △\$135.00 |
| Polished wooden cabinet with lock, key and handle, - - - - | 10.00 |
| Knife, for same, in case, - - - - - | 6.50 |
- B1057. **Microtome**, Gudden's, especially adapted for brain sections ; diameter of cylinder, 16.⁵ centimeters.
- | | |
|-------------------------------------|-----------|
| Price, including one knife, - - - - | △\$150.00 |
|-------------------------------------|-----------|
- B1058. **Microtome**, Schultze's, for extra large sections ; length of razor course, 80 cm., with mechanical razor adjustment, - - - - -
- | | |
|---|-----------|
| | △\$275.00 |
| Knife for same, with 54 cm. cutting-edge, - - - - | 95.00 |

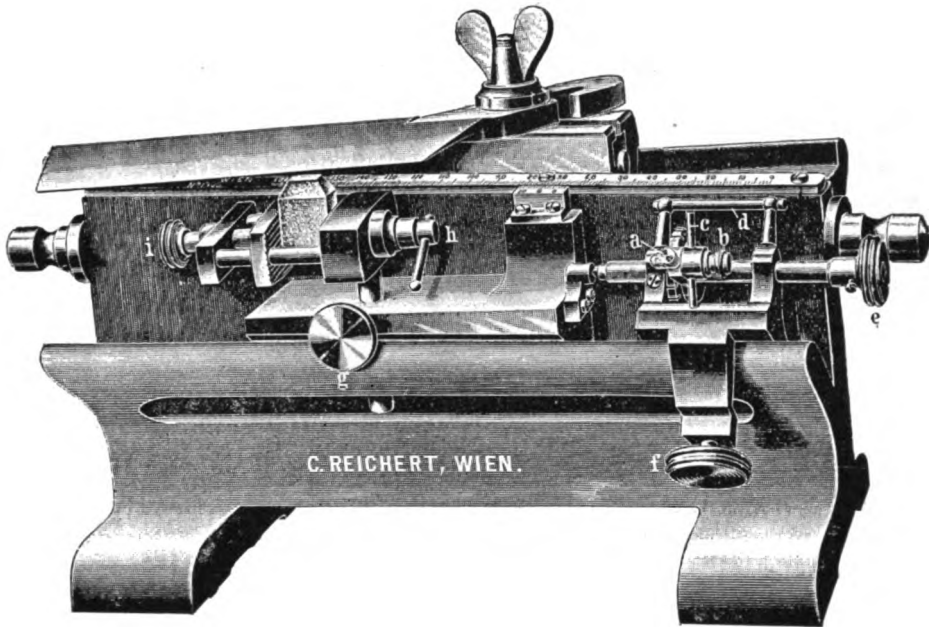
MICROTOMES



B1059.

- B1059. **Microtome, Jung's Student**, latest form, for frozen objects imbedded in paraffin or celloidin, with automatic snap micrometer-screw, automatic knife movement, automatic adjustment for cutting sections to 2.5μ , object holder, object clamp, freezing chamber, ethylchloride, imbedding frames, two knives in box, two hones, and one knife handle for honing - - - - - \$45.00

MICROTOMES



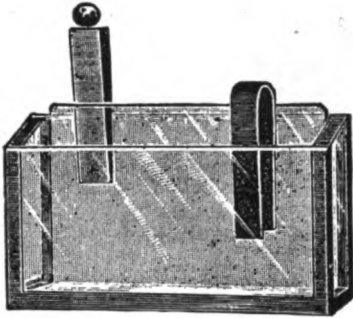
B1060.

○*B1060. **Microtome**, Reichert's sliding, knife slide 26 cm. long on an inclined plane, with one knife 12 to 13 cm. long, micrometer screw, Naples object clamp and automatic adjustment for cutting sections down to 1μ - - \$52.50

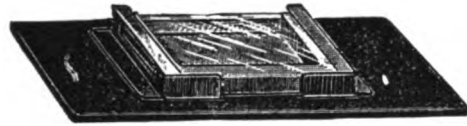
Microtome Knives see page 43

MICROSCOPIC ACCESSORIES

- B1061. **Acid Carbonic, Liquefied**, for freezing purposes with the microtome. in iron cylinders of 10 and 20 lbs., lb. .35
 a. 10 lb. cylinders, \$12.00; b. 20 lb. cylinders, - \$15.00
Aniline Stains, see Appendix.

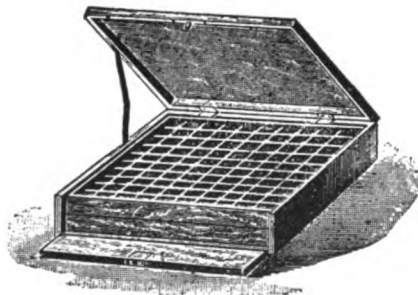


B1062.



B1063.

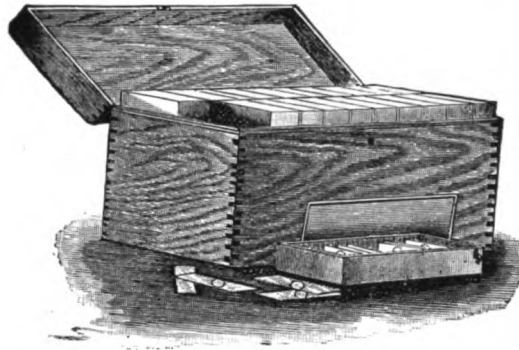
- *B1062. **Animalculae Cage**, with wedge and spring, - - \$2 50
 —*B1063. **Aquarium, Stage**, after Dr. J. C. Cori; - - 3.00
Balsam or Immersion Bottles, see Nos. 1104—6.
Belljars, for covering Microscopes, see Gen. Lab. App.
 ○ B1064. **Block Strop**, solid, fine, - - - each, 1.25
 ○ B1065. **Block Strop**, solid, coarse, - - - " 1.25
 — B1066. **Blood apparatus**, Migge's, for microscopical preparation of Blood, complete in fine leather case, with directions, - - - - - 5.00
 ○ B1067. **Bow Strop**, 324×60 mm., - - - each, 2.00



B1069.

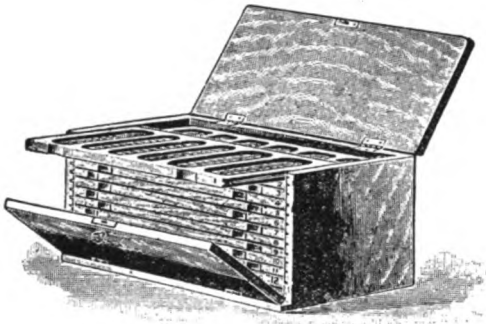
- B1068. **Cabinet**, for holding 98 Paraffine Blocks, - each, \$3.50
 —*B1069. **Cabinet**, for holding 200 Paraffine Blocks, - " 4.50
 — B1070. **Cabinet**, for holding 500 Paraffine Blocks, - " 7.50

MICROSCOPIC ACCESSORIES

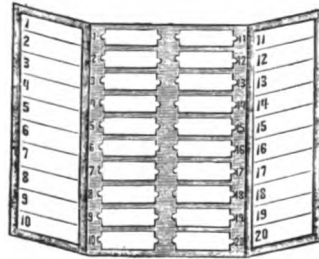


B1072.

- B1071. **Cabinets** for slides, Pillsbury's portable.
 For 10 boxes of 25 slides, - - - - - \$3.00
 —*B1072. " 20 " " 25 " - - - - - 4.00



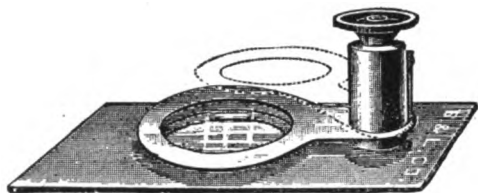
B1073.



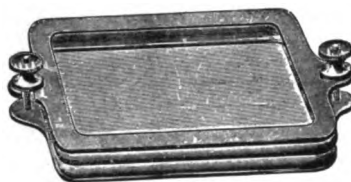
B1074.

- *B1073. **Cabinets** for slides, improved form, allowing removal of any tray desired, without interfering with any other.
 a) With 6 single trays, holding 36 objects, - each, \$1.60
 b) With 9 single trays, holding 54 objects, - " 2.25
 c) With 12 single trays, holding 72 objects, - " 2.75
 d) With 12 double trays, holding 144 objects, - " 4.00
 e) With 16 double trays, holding 218 objects, - " 6.00
 —*B1074. **Cabinets** for slides, map form.
 For 20 slides, - each, .25 - - - - - dozen, 2.50
 — B1075. ditto, with clamps for keeping same closed, each, .30 " 3.00
 — B1076. **Cells**, of glass, various sizes and depths - dozen, \$1.00
 ○ B1077. **Cells**, of rubber, " " " " - " .15
 ○ B1078. **Cells**, " " Atwood's for opaque objects, " .25
 ○ B1079. **Cells**, " Zylonite, various sizes and depths, " .25
 Chemicals. See special list.
 — B1080. **Compressor**, Wenham's, diameter of glass discs,
 22 mm., - - - - - 1.50

MICROSCOPIC ACCESSORIES

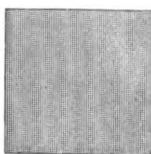


B1081.



B1082.

- *B1081. **Compressor**, Wenham's, improved, with movable upper compressor discs, diameter of glass discs, 20 mm., \$3.50
- *B1082. **Compressor**, Bureau of Animal Industry design; used in all Government laboratories, for rapid and accurate meat inspection, - - - - - \$2.00



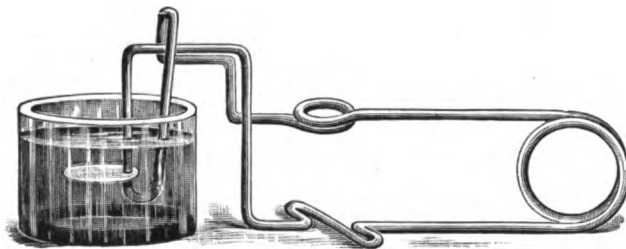
B1083.



B1084.

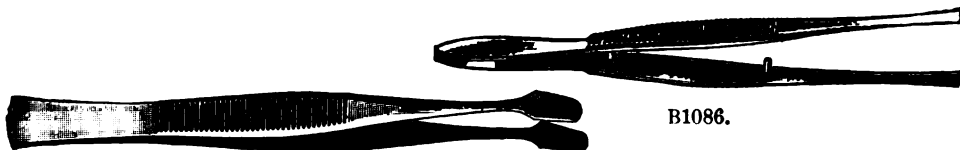
Cover Glasses, thin, best quality, in $\frac{1}{2}$ oz. boxes.

- | | | | | | | |
|----------|--------------|---------------|---------------|---------------|--------------------------|------------|
| | Size, | $\frac{1}{2}$ | $\frac{5}{8}$ | $\frac{3}{4}$ | $\frac{7}{8}$ or 1 inch, | |
| —*B1083. | Squares. No. | 0 | 1 | 2 | 3 | |
| | Price, | \$1.50 | \$1.00 | .80 | .60 | per ounce. |
| —*B1084. | Circles. No. | 0 | 1 | 2 | 3 | |
| | Price, | \$1.75 | \$1.25 | \$1.00 | .80 | per ounce. |
- Special prices for quantities. Slides see page 50.



B1085.

- *B1085. **Cover Glass Forceps**, Kalteyer's, of nickelplated spring-wire, for staining purposes, - - - - - .25



B1086.



B1087.



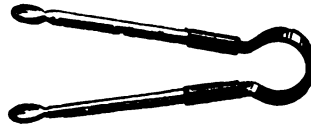
B1087a.

- *B1086. **Cover Glass Forceps**, with flat points, - each, \$.40
- *B1087. **Cover Glass Forceps**, - - - - - " .50
- *B1087a **Cover Glass Forceps**, self-closing, - - - - - " .75

MICROSCOPIC ACCESSORIES



B1088.



B1091.

- | | | |
|----------|---|--------|
| *B1088. | Cover Glass Forceps, Cornet's, ends flattened, each, | .50 |
| B1089. | Cover Glass Forceps, Ehrlich's - - - " " | 1.50 |
| — B1090. | Cover Glass Forceps, Stewart's - - - " " | .15 |
| *B1091. | Cover Glass Forceps, Muck's, with glass arms and
spring of brass, - - - - - each, | 1.00 |
| *B1092. | Cover Glass Forceps, Novy's, simple form, each, | \$.75 |
| *B1093. | Cover Glass Forceps, Novy's, with clasp, " " | 1.25 |



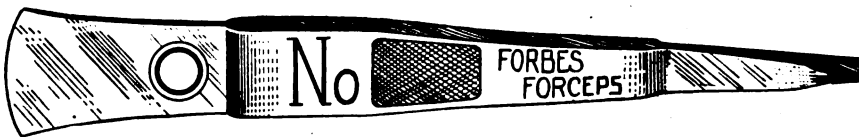
B1092.



B1093.

- *B1094. **Cover Glass Forceps,** Forbes, - - - each, .30

These Forceps, lately invented by Dr. Chas. Forbes of the College of Physicians and Surgeons of Columbia University, N. Y. City, excel many in the market by their simple and practical form.



B1094.

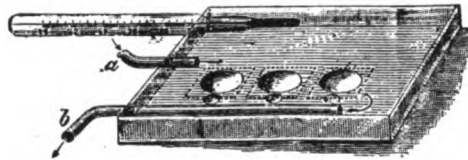
For staining purposes the cover-slip is held horizontally, the forceps resting on the table. For drying, the forceps, firmly grasping the cover-slip, can be hung up by the hole provided for that purpose. For examination, the cover-slip can be slid onto the wide end of the forceps and there held horizontally. Specimens may be manipulated with the spatula end of the forceps. The cover-slip is held in a firm grip, with but a single point touching its upper surface. A roughened space provides a surface for marking the number of the specimen.

- B1095. **Cover Glass Gauge,** for determining the thickness
of cover glasses, - - - - - each, 3.00

MICROSCOPIC ACCESSORIES

Dropping Bottles. See Gen. Lab. App.

—B1096.	Eyeshade , Dr. Ward's	- - - -	each,	\$.50
—B1097.	Eyeshade , Aubert's Binocular	- - - -	pair,	1.50
—B1098.	Finger , Mechanical, Dr. Rezner's,	- - - -	each,	6.00
—B1099.	Focusing Glass , for photo-micrographic work,	- - - -	each,	2.00
OB1100.	Heating Chamber , Zeiss', acc. to Pfeiffer, for micro-			
	scopes.			
	a) for Stand IV	- - - -	△	\$26.50
	b) for Stands I and III	- - - -	△	38 00
	c) for Stand V	- - - -	△	24.70



B1101.

- *B1101. **Heating Trough**, Pfeiffer's, with 3 cavities and thermometer, reading from 33° to 44° C. divided in $\frac{1}{2}$ degrees, for use with the microscope, especially for observing bacteria; by placing a small flame under the reservoir, the temperature can be kept steady, without any regulation, within $\frac{1}{2}$ ° for hours - - - - - \$10.00
- Single Thermometer - - - - - 1.50



B1104-5.



B1106.

- B1102. **Hone**, Yellow Belgian, very best quality, 234×52 mm. (9 $\frac{1}{4}$ ×2"), set in wooden block with cover - - - \$3.00
- B1103. **Hone**, Bluish Green, imported, 260×52 mm. (10×2"), with rubbing stone, both in wooden block with cover - 1.00
- Immersion Oil Bottles**, for the convenient use of the immersion oil.
- *B1104. round with cap and glass rod, E. & A.'s - - - .35
- *B1105. round with cap and glass rod, Zeiss' make - - - .45
- *B1106. conical, according to Mach, Zeiss' make - - - .65

MICROSCOPIC ACCESSORIES

- OB1107. **Knife**, Fritsche's, for making thin sections of soft substances - - - - - \$6.00
- OB1108. **Knife**, Valentine's, for making thin sections of soft substances - - - - - 6.00
- OB1109. **Knife** or Razor Holder, acc. to length of knife - \$1.00 to 1.50
- OB1110. **Knife** or Razor Holder, adjustable - - - - - 1.50

Knives for Microtomes, of Jung's, Schanze's, Walb's, Reichert's and other makes; imported to order.

Knife, Paraffine, see No. 1143.

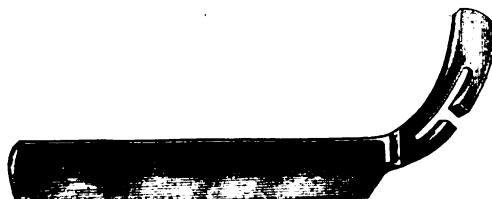


B1111 — B1112



B1111 — B1112

- *B1111. **Knife, Section**, for simple microtome, detachable ebony handle, cutting edge 90 mm., in case, - - - \$3.00
- *B1112. **Knife, Section**, as above, 125 mm., in case - - - 6.00



B1113.

- *B1113. **Knife, Section**, for mechanical microtomes, of best forged steel, in wooden case, according to Weigert.
- | | | | | | | |
|-----------------------|---|---|---|---|---|------|
| Cutting edge, 100 mm. | - | - | - | - | - | 4.75 |
| " " 120 mm. | - | - | - | - | - | 5.50 |
| " " 160 mm. | - | - | - | - | - | 8.50 |

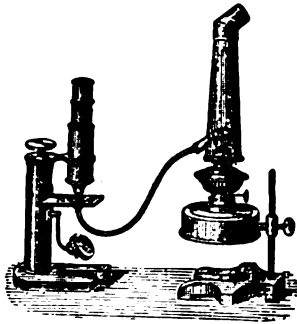
Labels, gummed, white, for slides.

- | | | | | | | | |
|---------|-------------------|---|---|---|---|----------------|-----|
| —B1114. | round, 16 mm. | - | - | - | - | per box of 100 | .10 |
| —B1115. | oval, 20×14 mm. | - | - | - | - | " | .10 |
| —B1116. | oblong, 23×15 mm. | - | - | - | - | " | .10 |
| —B1117. | square, 22 mm. | - | - | - | - | " | .10 |
- *B1118. **Lamps**, of glass, for alcohol, with metal burner and extinguisher; can be set in four different angles. See fig. B1129. Prices include wicking.

	a	b	c
Diameter of burner	5	7	12 mm.
Capacity - -	40	120	120 cm.
Price - - -	.70	.80	\$1.00 each.

MICROSCOPIC ACCESSORIES

- B1119. **Lamp**, Welsbach's, for Microscope, with metal chimney, \$8.00
 —B1120. **Lamp**, as above, with iris diaphragm - - - - 12.00
 ○B1121. **Lamp**, Zeiss' microscope, with spherical flask on stand - 8.50
 ○B1121a. Spherical flask on stand alone - - - - 2.75

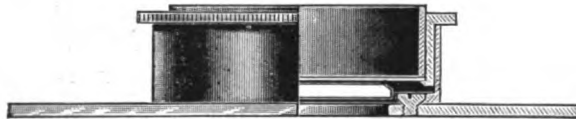


B1122.



B1123.

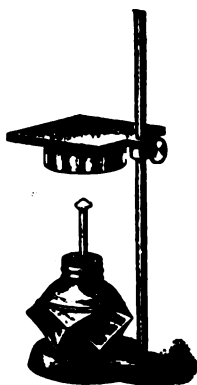
- *B1122. **Lamp**, Wolz's for Microscope, with glass rod, for use with petroleum - - - - - △ \$6.00
 —*B1123. **Lamp**, Lassar's for Microscope, with blue disc, for use with petroleum - - - - - 10.00
 B1124. **Lamp**, Lassar's for Microscope, for use with gas - - 15.00
 B1125. **Lens Paper**, Japanese, for cleaning eyepieces, objectives, etc., 18×24 inches - - - - - 100 sheets 1.00
 B1126. ditto, 12×18 inches - - - - - 100 sheets .50



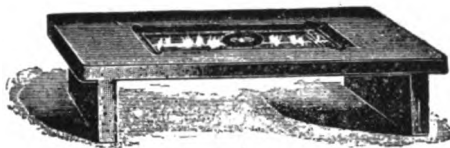
B1127.

- *B1127. **Life Box**, on brass slip - - - - - each \$2.00
Life Slide, Holman's with cover, in box, see 1163.
 —B1128. **Mailing Cases**, reversible, for slides, gross \$1.00, dozen .10
Microtome Knives, see page 43.
 B1128a. **Mounting Blocks** of vulcanized fibre, 1½"×1"×½" or 1"×1"×1" - - - - - dozen, .75
Mounting Dishes, glass and porcelain, see P. 54.
Mounting Media, see Appendix.

MICROSCOPIC ACCESSORIES

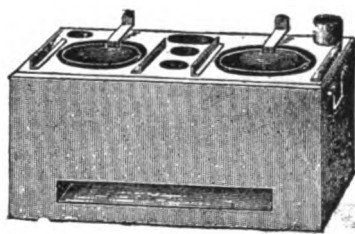


B1129.

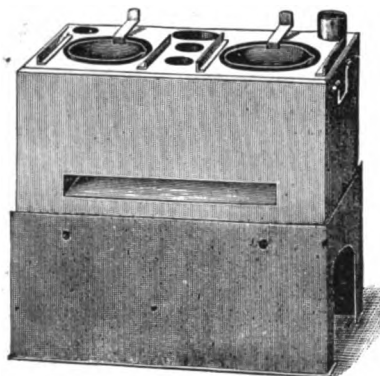


B1130.

- *B1129. **Mounting Stand**, with lamp and sand bath, - - \$2.00
 —*B1130. **Mounting Table**, Prof. Van Cott's, - - - .80
Observation Slide, Dr. Cori's reversible, see B1167
 — B1131. **Orientating Apparatus**, complete for serial sectioning
 and reconstruction work, - - - 10.00



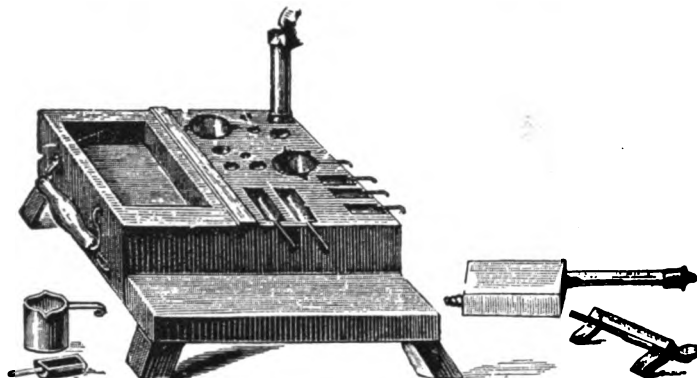
B1132.



B1133.

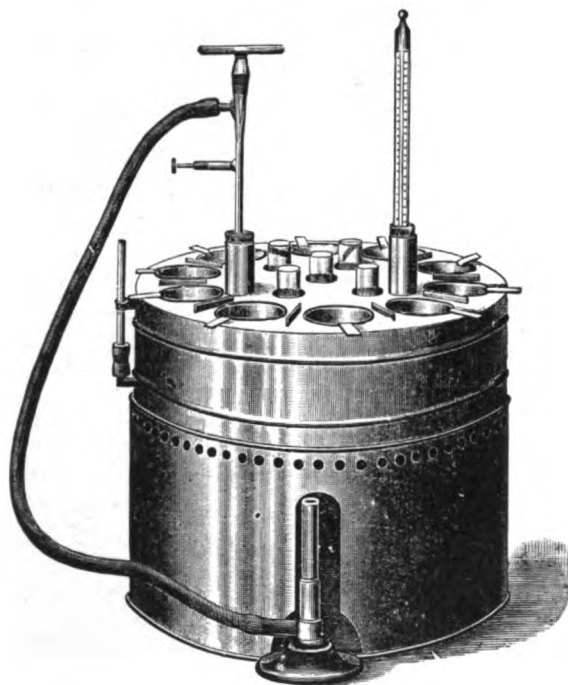
- OB1132. **Paraffine Bath**, made of polished copper 18 cm. long,
 9 cm. wide, 9 cm. deep, with space for heating slides,
 two nickel-plated cups 65×40 mm., and tubulations for
 thermometer and gas regulator, - - - \$6.75
 ○B1133. **Paraffine Bath**, as above, with sheet iron base, 13 cm.
 high, - - - 7.50

MICROSCOPIC ACCESSORIES



B1134.

- *B1134. **Paraffine Bath**, Lothar-Meyer's, 26 cm. long, 23 cm. wide, 7 cm. high, like cut, - - - - - \$22.50



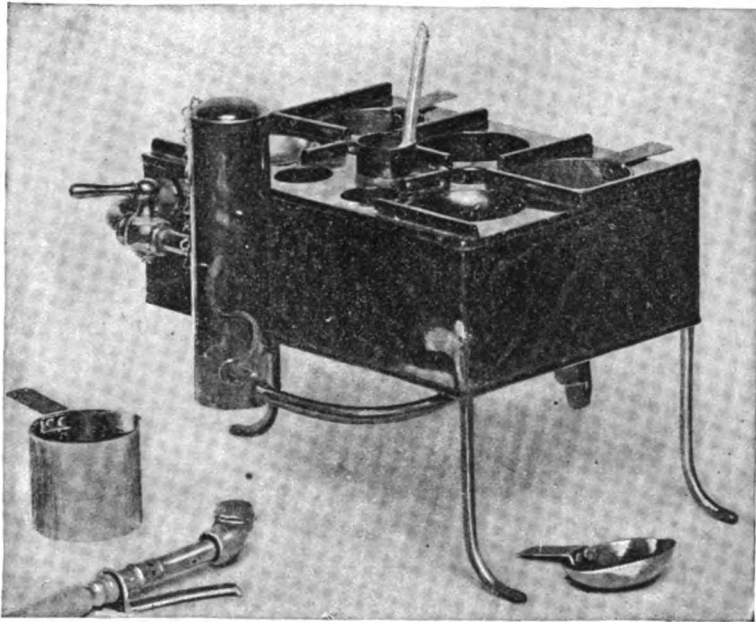
B1135.

- B1135. **Paraffine Bath**, large round, made of polished copper, 32 cm. diameter, 9 cm. deep, stands 18 cm. high.
 There are ten cups, seven being of a deep form, 6×4 cm.; three are shallow, 6×2 cm., watch-glass shape; with 7 tubulations in top, for test tubes, thermometer and gas regulator.
- | | | |
|-------------------------------|-----------|---------|
| Price of Paraffine Bath only, | - - - - - | \$17.50 |
| Price, complete, as per cut, | - - - - - | 20.00 |

MICROSCOPIC ACCESSORIES

LEWIS PARAFFINE BATH

This Paraffine Bath is designed for use with either gas or lamp. The temperature of the bath is maintained by a constant convection current. The heated water enters the bath through the heating tube leading from the heating cylinder into the side of the bath, and the return pipe from the bottom of the bath conveys the cooler water back to the heating cylinder. Thus a constant current is maintained in the bath. The temperature of the bath is easily regulated by means of the stop-cock in the heating tube, allowing only such portion of heated water to enter the bath as is desired for the temperature needed. This permits the use of a lower or higher temperature according to the melting point of paraffine used. Where different degrees of paraffine are required, a slight turn of the stop-cock gives the temperature desired for its melting point. This obviates the necessity of the generally followed practice (too often causing hardening and shrinking) of using a



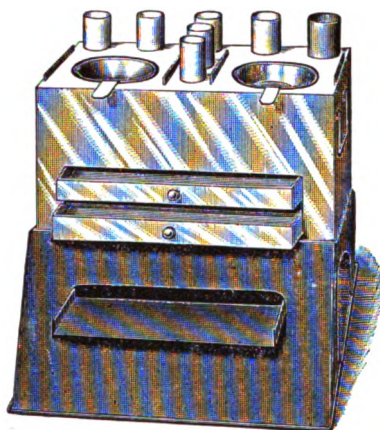
B1136.

carefully regulated 54° – 60° for all stages from the clearing oil to hard paraffine. With the Lewis bath a 35° – 40° temperature may be maintained for working out the oil and infiltrating the tissue with a low melting paraffine.

A gradual turn of the stop-cock allowing a greater supply of heated water to enter the bath will cause a gradual rise in the temperature of the bath until the 52° , 54° or 60° is reached for the harder grades of paraffine. The tissue, previously infiltrated with a low melting paraffine, only needs to remain at this higher temperature for a comparatively short time. This insures a more certain result than would otherwise be obtained.

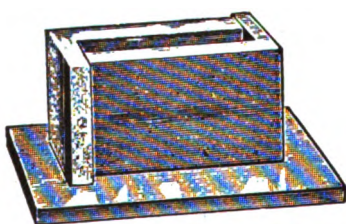
- *B1136. **Paraffine Bath, Lewis**, with three deep cups, diameter 2 inches, depth 2 inches, and two shallow cups, 2 inches by $\frac{3}{4}$ inch, four test tube or vial receptacles and thermometer receptacle, - - - - - \$16.00
 with five deep and three shallow cups - - - - - 18.75

MICROSCOPIC ACCESSORIES



B1137.

- OB1137. **Paraffine Bath**, improved form, 20×10×10 cm., with one shallow and one deep nickel-plated cup, 6 cm. dia., with two drawers for slides and tubulations for five test tubes, thermometer and gas regulator, - - - - \$12.00



B1138



B1139

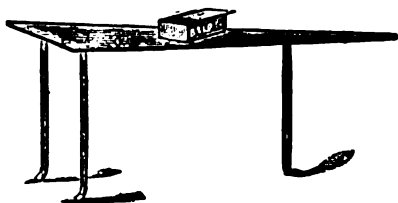
- *B1138. **Paraffine Imbedding Box**, of type metal, each of two pieces, with metal plate.

Height, - - - 10 20 30 mm.

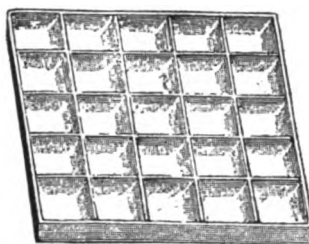
Price, - - - 45 45 45 cents each.

- *B1139. **Paraffine Imbedding Frame**, Schulze's, consisting of two ground glass angles and zinc plate, - - - \$1.50

MICROSCOPIC ACCESSORIES



B1140.



B1142.

- *B1140. **Paraffine Imbedding (Warming) Table**, 40 cm. long, with supports, two copper trays and glass covers, - - \$2.00
- B1141. **Paraffine Imbedding (Warming) Table**, for mounting by Ehrlich's Method, made of copper, - - .80
- Detachable legs, adjustable to any position, size of plate 39 × 10 cm.; height of legs 20 cm., - - .80
- *B1142. **Paraffine Imbedding Tray**, of porcelain, with 25 compartments, - - each, 2.00
- B1143. **Paraffine Knife**, for trimming paraffine blocks, etc., - .20
- B1144. **Section Flattener**, for preventing the curling of thin sections as they are cut, - - 1.25



B1146-7.

B1148. B1149. B1150. B1151

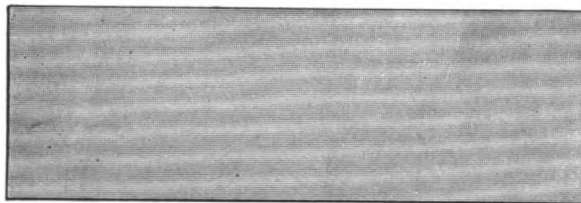
B1152.

B1153.

Section Lifters, see next page.

MICROSCOPIC ACCESSORIES

- B1145. **Section Lifter**, nickel-plated, 100 mm. long, blade
18 mm. wide, - - - - - each, \$.10
 - *B1146. **Section Lifter**, nickel plated, improved form, with two
blades 10 and 22 mm. broad respectively; 150 mm. long, .25
 - *B1147. **Section Lifter**, like "No. 1146," but with one blade
22 mm. broad; 150 mm. long, - - - - - .15
 - *B1148. **Section Lifter**, nickeled, ebony handle, with blades 6 and
10 mm. broad, - - - - - .40
 - *B1149. **Section Lifter**, nickeled, ebony handle, one blade 4 mm.
broad, - - - - - .30
 - *B1150. **Section Lifter**, nickeled, ebony handle, flexible blade,
12 mm. broad, - - - - - .35
 - *B1151. **Section Lifter**, nickeled, ebony handle, flexible blade,
18 mm. broad, - - - - - .35
 - *B1152. **Section Lifter**, nickeled, ebony handle, flexible blade,
38 mm. broad, - - - - - .40
 - *B1153. **Section Lifter**, concave, perforated, nickeled, ebony
handle, bowl 18 mm. diameter, - - - - - .80
- (Illustrations see on page 49.)
- B1154. **Section Razor**, best hand forged steel, - - - 1.10
 - B1155. **Section Razor**, 75 mm. blade, good quality, - - 1.00
 - B1156. **Section Razor**, 75 mm. blade, best quality, - - 1.25



B1157-9.

* **Slides**, white glass, for microscopical objects, 3×1 inches,
in ½ gross boxes.

—*B1157.	With cut edges,	- - - - -	gross, \$.75	} Special prices for quantities.
—*B1158.	" ground edges,	- - - - -	"	1 00	
—*B1159.	" " " extra thin,	- - - - -	"	1 10	
— B1160.	" " " and concave centers,	dozen,		60	
— B1161.	" " " but 3×2 inches,	- gross,		3.00	



B1162.

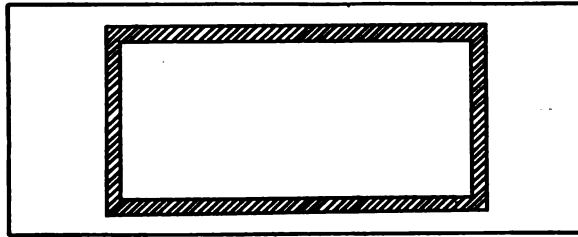
- *B1162. **Slides** of crystal glass, 3×1 inches, with plate cemented on
top, 15 mm. inside diameter, so called **Moist chambers**,
each, .30

MICROSCOPIC ACCESSORIES



B1163.

- *B1163. **Slide**, Current or Life, Holman's, with covers, in box, - \$1.50
 ○B1164. **Slide**, Spinthariscopes, on which Radium is mounted to show its scintillations under the microscope, - - - 4.50



B1165.

- *B1165. **Slide**, Rafter's, for water examination; brass cell cemented on glass slide, 3×1 inches, complete with coverglasses, - \$3.25
 (See also Water Examination Apparatus).

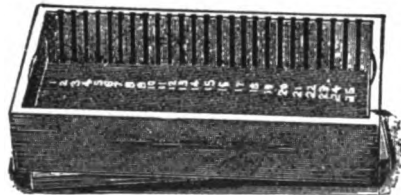


B1166.

- *B1166. **Slide**, Drop Culture, 3×1 inches, with cavity of 18 mm. diameter ground in, - - - each, .30



B1167.

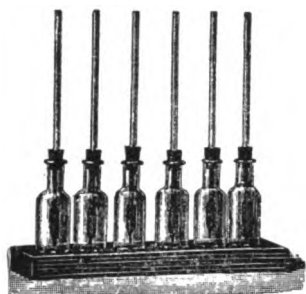


B1168.

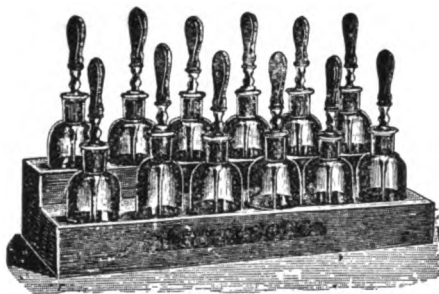
- *B1167. **Slide**, Observation, Dr. Cori's reversible - - - 3.00
 —*B1168. **Slide Boxes**, of light wood, to hold 3×1 inch slides, tight fitting cover, index on inside, and label on outside.

For	6	12	25 objects.
Each,	.12	.14	.15
Doz,	1.15	1.25	1.35

MICROSCOPIC ACCESSORIES



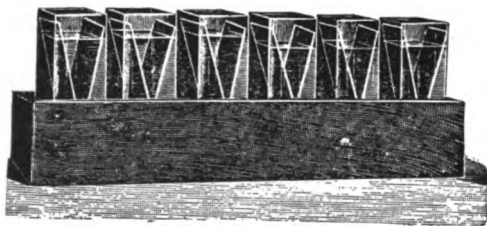
B1169—1169a.



B1170—1170a.

Stains see Appendix.

- *B1169. **Staining Bottles**, plain, 50 CC. capacity, with cork and pipette, - - each .15, - - - dozen, \$1.50
 Wooden Block with 6 8 12 Bottles.
 *B1169a. Price, \$1.50 \$2.00 \$3.00 each.
 *B1170. **Staining Bottles**, with ground in pipette and rubber bulb; capacity 30 CC., - each, .25 - dozen, 2.50
 Wooden Block with 6 8 12 Bottles.
 *B1170a. Price, \$3.00 \$4.00 \$6.00 each.



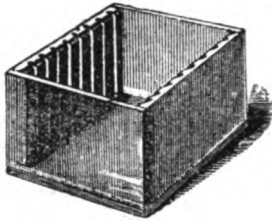
B1171.



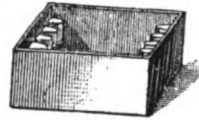
B1172.

- *B1171. **Staining Box**, for microscopic slides, holding 6 glass trays, - - - - - \$2.50
 —*B1172 **Staining Cylinder**, with loose fitting cover and loose dish, inside, rim of jar, cover and dish polished, 70 mm. high and 35 mm. diameter, - - - - .25

MICROSCOPIC ACCESSORIES



B1173.

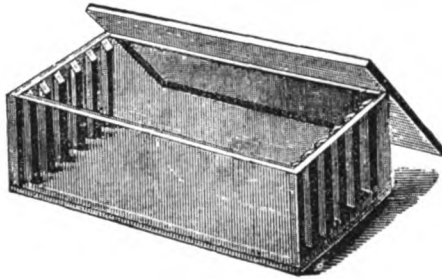


B1174.

- *B1173. **Staining Box**, small, glass, with ground-in grooves, for staining preparations on the cover glass, acid- and alkali-proof.

a)	with 6 pairs of grooves for 18 mm. covers,	-	-	\$1.25
b)	" 8 " " " " 18 " " "	-	-	1.50

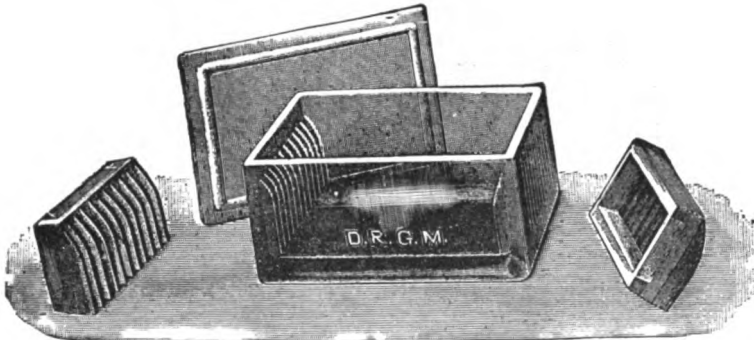
- *B1174. **Staining Box**, Schiefferdecker's, of porcelain, with loose fitting glass lid and rack for holding 10 slides at a time, a great convenience for staining on the slide, - - .75



B1175.

- *B1175. **Staining Box**, of glass, with luted ribs, acid- and alkali-proof, for holding

	4	5	6	slides, 3 x 1 inch.
Price,	\$2.50	\$3.00	\$3.50	each.



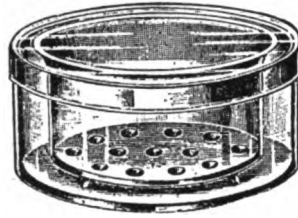
B1176.

- *B1176. **Staining Box**, Schiefferdecker's, entirely of glass, with well fitting cover and removable groove parts, - - 1.00
ditto, with stationery grooves - - - - .25

MICROSCOPIC ACCESSORIES



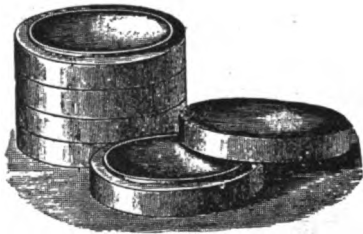
B1177.



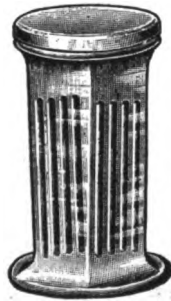
B1178.

- *B1177. **Staining Case**, consisting of polished wooden base with cavity for nine reagent bottles of 15 ccm. capacity, and a groove for a belljar, thus keeping the reagents dust proof.
Price, complete with bottles and belljar, - - - \$4.00

- *B1178. **Staining Dish**, Steinach's, all glass, inner vessel having perforated bottom, enabling easy removal of objects,
- | | | | |
|---------------|--------|------|------------------|
| Outer dish, | 6 | 8 | 10 cm. diameter. |
| Inner vessel, | 4 | 5.5 | 7 " " |
| Price, | \$1.50 | 1.75 | 2.25 each. |



B1179.



B1180.



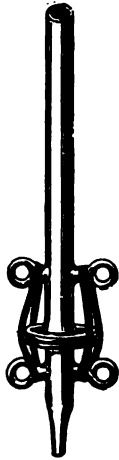
B1181.

- *B1179. **Staining (Mounting) Dishes**, Porcelain, in nests of 5 with cover, for staining of sections.

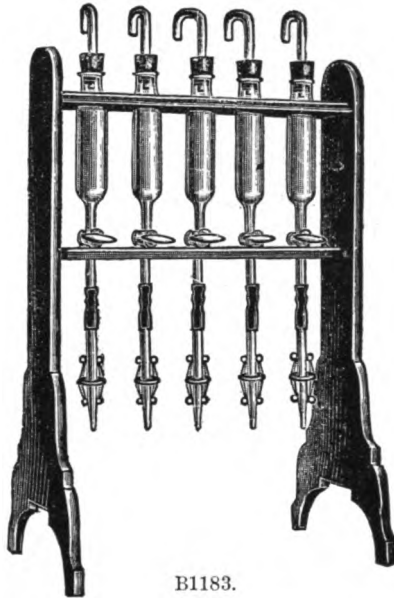
	a.	b.	c.	d.
Diameter,	62	68	78	91 mm.
Price,	.50	.60	.70	.80 per nest.

- *B1180. **Staining Jar**, Coplin's, for 10 slides; very practical and economical as to space and reagent; made of heavy glass with ground-on cover, - - - - - .50
- *B1181. **Staining Rack**, Hofmeister's, for coverglasses, - - - 2.00

MICROSCOPIC ACCESSORIES

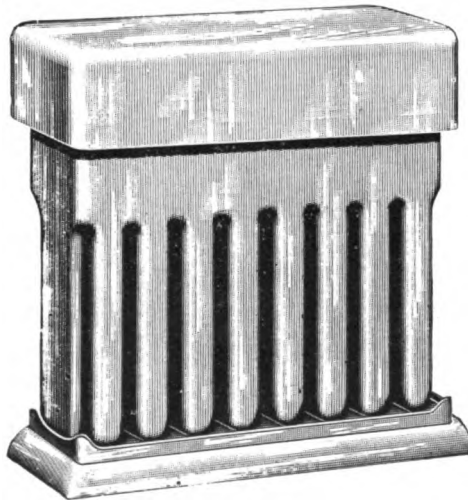


B1182.



B1183.

- *B1182. **Staining (Filtering) Pipette**, Babe's, for obtaining rapidly clear staining fluids, - - - - - \$.50
 *B1183. **Staining Pipettes**, five, on stand, acc. to Heim, with five separatory funnels as reservoirs, complete, - - - - - 9.00
 B1184. **Staining Tray**, of Royal Berlin porcelain, with 12 cavities, .60

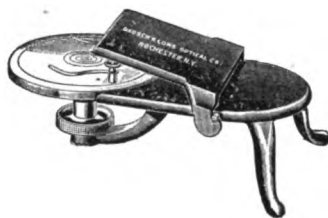


B1185.

- *B1185. **Staining Trough**, of glass, after Hellendal, with grooves to hold 16 slides for staining; being made in one piece, without any cementing, they can therefore be used with any liquid: Acid, Alkali, Alcohol, etc., new improved form on solid glass foot, with cover, - - - - - \$1.00

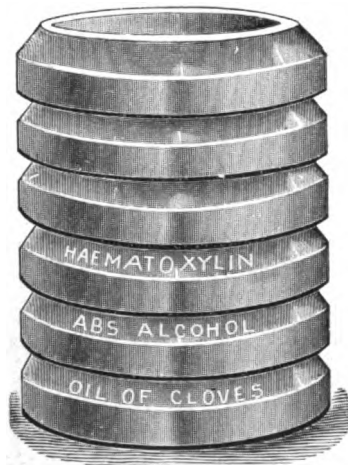
MICROSCOPIC ACCESSORIES

- B1186. **Turn Table**, for ringing mounts and making cells. The slip is held on a revolving disc ; the application of varnish or cement is accurately made by a brush held above ; with stationary hand-rest and slide clips for holding down slips. Diameter of turn table, 88 mm., - - - \$2.50
- B1187. **Turn Table**, as above, with three centering pins and detachable hand-rests - - - - - 3.50



B1188.

- *B1188. **Turn Table**, as above, with self-centering device and detachable hand-rests. Diameter of turn-table, 98 mm. - \$6.00
- Warming Tables**, see page 49.



B1189.

- *B1189. **Watch Glasses, (Mounting dishes)**, Syracuse solid, improved form, outside dia. 65 mm., inside dia. 50 mm., depth 10 mm. Beveled, plain, - - - dozen, \$.60
- B1190. **Watch Glasses**, beveled, surface ground, forming a writing surface, - - - - - dozen, .90
- B1191. **Watch Glass** Standard, for Syracuse Watchglasses, to hold a nest of six or less, - - - each, .50

MICROSCOPIC ACCESSORIES

	Watch Glasses, Embryological, with covers and one vertical surface ground for writing upon.		
— B1192.	Upper and lower surface, plain, - -	dozen,	\$.75
— B1193.	" " " " cut and polished, "		1.50
— B1194.	of black glass, - - - - -	each,	.30
B1195.	Watchglasses, concave center with small facet,	dozen,	.60
B1196.	Watchglasses, as designed by Dr. Minot of Harvard University; top and bottom ground true, and highly polished, superior to any in the market, plain polished,	dozen,	1.00
B1197.	Watchglasses, as above, with ground faces for writing,	dozen,	1.60
B1198.	Wax Pencils, for writing on glass, blue or yellow,	each, .15; dozen,	1.50
B1199.	Writing Diamonds, for writing on glass, acc. to quality,		\$2.00 to 5.00

Sterilizers and Incubators, Etc.



B1210.



B1213.

- *B1210. **Steam Sterilizer**, Koch's, of tinned steel plate, with heavy copper bottom, 50 cm. high, 20 cm. diameter, having tubulure for thermometer, grating, water gauge with stopcock and interior vessel; the whole covered with thick felt, on detachable tripod,
- | | | | | |
|--|--|---|---|---------|
| | Price, without thermometer and burner, | - | - | \$10.00 |
|--|--|---|---|---------|
- B1211. Price, with thermometer and burner, - - - 12.00
- B1212. **Steam Sterilizer**, Koch's, as above, but with larger heating surface and flame protection for rapid production of a large quantity of steam,
- | | | | | |
|--|--|---|---|-------|
| | Price, without thermometer and burner, | - | - | 12.50 |
|--|--|---|---|-------|
- *B1213. Price, with thermometer and burner, - - - 14.50

STERILIZERS AND INCUBATORS, Etc.

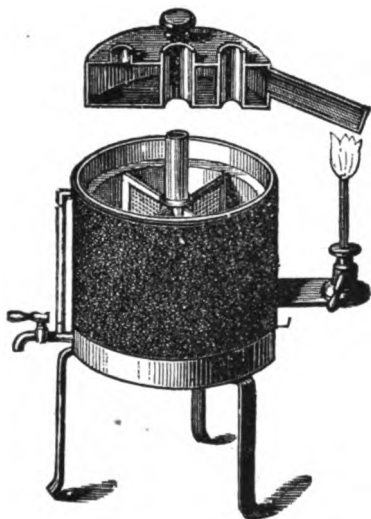


B1214.



B1215.

- | | | | |
|---------|---|--------|-------------|
| *B1214. | Sterilizer Interior Vessels, of tinned iron, | 15 cm. | 21 cm. dia. |
| | for Nos. 1210 to 1212, - - - - - | \$1.75 | \$2.00 |
| *B1215. | Sterilizer Interior Vessels, of wire gauze | | |
| | with 4 partitions, - - - - - | 2.75 | 3.50 |

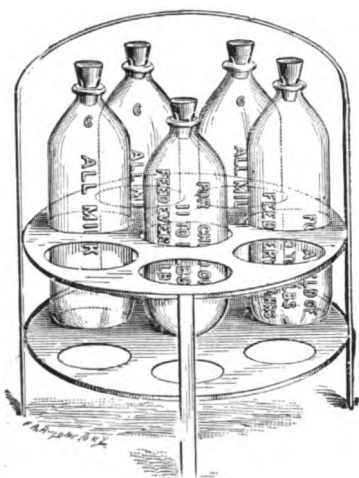


B1216.

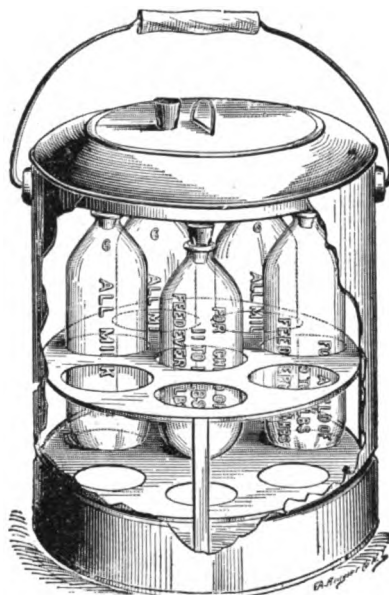


B1217.

- *B1216. **Steam Sterilizer,** Koch's, for blood serum, double walled, cylinder of tinned steel plate, with heavy copper bottom, double walled cover with 3 brass tubulures, heating tube for cover, support for burner and removable perforated partitions, water gauge and stopcock; the whole covered with thick felt, on detachable tripod.
- | | |
|---|---------|
| Price, without thermometers and burners, - - | \$17.00 |
| Inside vessels with four compartments, for taking test tubes, - - - - - | 3.00 |
- *B1217. **Steam Sterilizer,** Koch's improved form of B1216, with larger heating surface and flame protection, felt or asbestos covered.
- | | |
|--|---------|
| Price, without thermometers and burners, - - | \$17.50 |
|--|---------|

STERILIZERS, INCUBATORS, Etc.

B1219.



B1220.

—*B1219. Sterilizers and Pasteurizers, Seibert's, for milk;							
"Seibert's Graded Infant Feeder."		Apparatus					
consisting of 1 tray, 8, 7 or 6 bottles according to size,							
with vented rubber stoppers and 1 nipple, - - -							\$1.25
—*B1220. Same with special boiler, - - -							1.75
Aluminum milkfilter, - - -							.50
Cotton discs for filtering the milk, - - per box,							.25
Bottles for above No.		1	2	3	4	5	6
per doz.		\$0.45	.50	.55	.60	.65	.70
Rubber stoppers for same - - - per doz.,							.25
Bottles, 8 ozs. capacity, graduated in ozs., - - -							.75

When ordering please state size of bottles.

A Chart, containing full directions is given with each apparatus.

STERILIZERS, INCUBATORS, Etc.**ARNOLD STERILIZERS****DESCRIPTION**

The Sterilizers on the following pages, designated by the name ARNOLD, have a quick steaming base which is supplied automatically with water from an open pan or reservoir above. The water in this reservoir never boils, but is always exposed to view and can be replenished when needed without interrupting the steaming process.

An unvarying temperature of 212° F. can be maintained indefinitely in the sterilizing chamber without requiring any attention, except replenishing the reservoir occasionally.

These sterilizers are used by Boards of Health and the most prominent laboratories and institutions throughout this country.

OPERATION

Water is poured into the pan or reservoir whence it passes as needed through small apertures into the quick steaming base beneath, to which heat is applied. As there is only a thin layer of water to boil at a time, it is converted into steam very rapidly and rises through the funnel in the centre to the sterilizing chamber above. Here it accumulates under moderate pressure at a temperature of 212° F. The excess of steam escapes about the cover, becomes imprisoned under the hood and forms a steam jacket around the outside of the sterilizing chamber, therefore an even temperature is maintained in the sterilizer. As the steam is forced down from above and meets the air, it condenses and drips back into the reservoir.



Patented April 20, 1897.

B1221-1225.

ARNOLD STERILIZERS AND PASTEURIZERS FOR MILK

The sterilization or pasteurization of milk is a protection which no doctor can afford to ignore. There ought to be an efficient sterilizer in every house where a baby is fed artificially, whether the milk is given alone or with prepared food.

This apparatus can be used for either sterilizing or pasteurizing; for sterilizing (212° F.) with the hood on; for pasteurizing (150° F. to 170° F.) with the hood off. When any special low temperature is required, a thermometer adapted for the purpose can be furnished. (See page 00.)

—*B1221.	Heavy tin, copper bottom, with rack, cleaning brush and	
	7 bottles, - - - - -	\$3.00
— B1222.	8 bottles, - - - - -	3.50
— B1223.	10 bottles, - - - - -	4.00
— B1224.	12 bottles, - - - - -	4.50
— B1225.	14 bottles, - - - - -	5.00

Larger sizes for Infants' Homes and Hospitals made to order.

STERILIZERS, INCUBATORS, Etc.

ROCHESTER STERILIZERS FOR MILK



B1226.

This is a very simple and inexpensive apparatus which can be used for steam or hot water sterilizing or pasteurizing. It consists of a nicely finished tin vessel with convenient handles and cover; a rack holding eight graduated bottles and a brush for cleaning. Beads around the sterilizing chamber mark the points to which water should be filled.

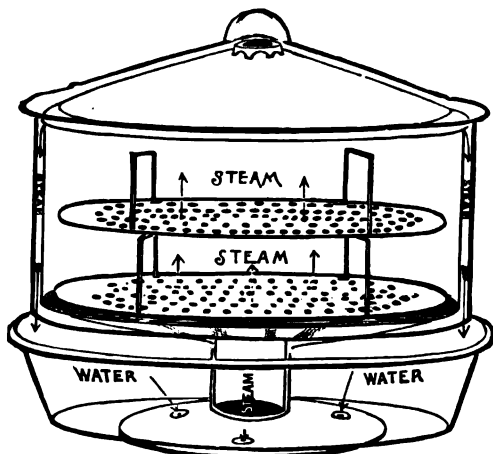
—*B1226. Price, complete, - - - - - \$2.00

ROCHESTER FOOD WARMERS AND COOLERS

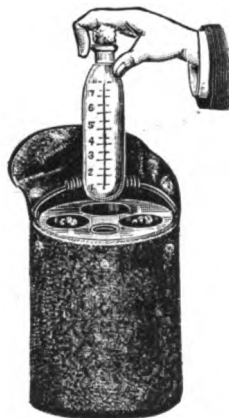
These Warmers are made of copper and, unlike rubber which is very perishable, will last a life-time and are much cheaper than rubber warmers. They are covered with a removable felt-cosy which makes them complete in themselves. No blanket or other covering is required to keep them warm. Boiling water is poured into the jacket through a screwcap opening. The bottles containing food are placed in tubes and do not come in direct contact with water. They can be used for any food, but are especially adapted for sterilized milk. They hold three bottles, and will keep the food warm enough for feeding, at least eight hours. They rob bottle feeding of its worst drawbacks; parents or nurses who use them are not obliged to get up in the night to heat food for the baby, and as there is no delay, baby will not become restless by having to wait for its food after waking.

Milk or other food can be kept cool instead of hot by substituting finely crushed ice or ice water in place of hot water.

—*B1227. Price, polished copper, with felt cosy, - - - - - \$2 75
Bottles, - - - - - .25



B1228-1230.



Patented June 6, 1899.

B1227.

These Sterilizers are supplied with two perforated racks; or if preferred, one perforated rack, and one zinc tray for sterilizing instruments in a 1% solution of Carbonate of Soda and water, which prevents their rusting. (For operation, see page 61.)

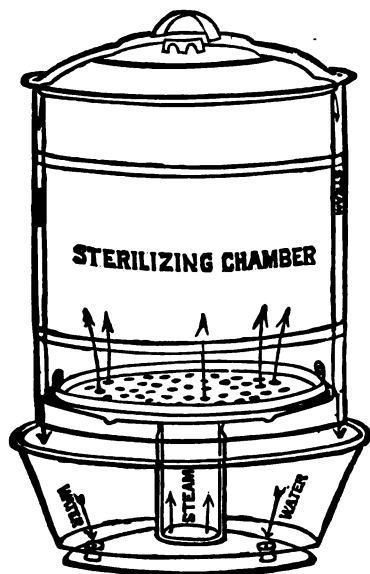
SIZES OF OVAL STERILIZING CHAMBERS

	Length.	Width.	Height.			Tin, Copper Bottom	Copper, Tin-lined
—*B1228.	14 in.	9 1/4 in.	6 in.,	-	-	\$5 50	\$15 75
—*B1229.	16 in.	10 1/2 in.	7 in.,	-	-	6 50	17 50
—*B1230.	18 in.	12 in.	8 in.,	-	-	10 50	25.00

Special sizes made to order; prices on application.

STERILIZERS, INCUBATORS, Etc.

ARNOLD STEAM STERILIZERS FOR GENERAL PURPOSES



B1231—B1238.



B1239—B1247.

These Sterilizers are inexpensive, and maintain an unvarying temperature of 100° C. in all parts of the sterilizing chamber without needing any care or attention; for this reason they are invaluable in laboratories and hospitals, and to physicians for many purposes.

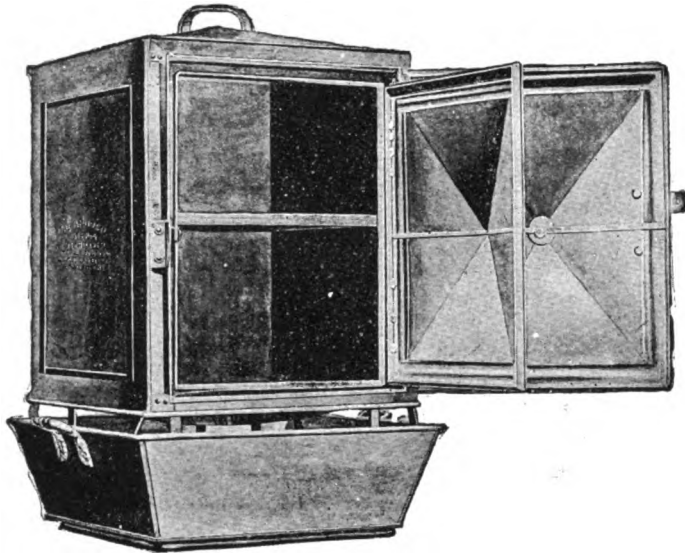
SIZES OF STERILIZING CHAMBERS

Height	Diameter		Ordinary Pattern	Side Door Pattern
— 7½ in.	8½ in.	Heavy Tin, Copper Bottom,	*B1231, \$3.00	*B1239, \$3 50
— 10½ in.	9½ in.	“ “ “ “	*B1232, 3.75	*B1240, 4 25
— 11½ in.	10½ in.	“ “ “ “	*B1233, 4 50	*B1241, 5 00
— 12½ in.	11½ in.	“ “ “ “	*B1234, 5.00	*B1242, 5 50
— 7½ in.	8½ in.	All Copper, Polished,	*B1235, 8 75	*B1243, 9 25
— 10½ in.	9½ in.	“ “ “	*B1236, 12 75	*B1244, 13 75
— 11½ in.	10½ in.	“ “ “	*B1237, 15 00	*B1245, 15 00
— 12½ in.	11½ in.	“ “ “	*B1238, 16.50	*B1246, 17.00

Special sizes made to order, prices on application.

SIDE DOOR PATTERN

Recommended on account of their low price, to all laboratories where a number of Sterilizers are required. The price, together with their great adaptability for general laboratory work, has led to their adoption in the leading colleges and hospitals. A constant temperature of 100° C. can be maintained indefinitely in the Steam Chamber. (For operation, see page 61.)

STERILIZERS, INCUBATORS, Etc.**ARNOLD STEAM STERILIZERS FOR LABORATORIES**

B1247—1248.

BOSTON BOARD OF HEALTH PATTERN

These Sterilizers are made of copper throughout with double walls, double doors and two removable wire cloth shelves. They are constructed on the same principle as all Arnold Sterilizers with Rapid Steaming Generator and maintain an invariable temperature of 100° C. in the sterilizing chamber. (For operation, see page 61.)

The square form, with doors opening conveniently at the side, make these Sterilizers much more desirable for laboratory purposes than other styles.

SIZES OF STERILIZING CHAMBERS

	Height.	Width.	Depth.						
—*B1247.	14 in.	8 in.	8 in.	.	.	.	.	.	\$35.00
—*B1248.	16 in.	12 in.	12 in.	.	.	.	.	.	40.00

For \$10.00 extra this pattern can be arranged so that either dry heat or steam can be used the same as in the Rochester Combination Sterilizer described on page 65. Made in this form, the inside measurement is reduced one inch each way.

ROCHESTER COMBINATION STERILIZERS

DESCRIPTION

These Sterilizers embody three sterilizing agencies—steam, hot air and boiling water—in one apparatus and was suggested by one of the most eminent surgeons in this country.

The Medical Department of the United States Army, after severe tests with other apparatus, has adopted them as standard, which alone should be a sufficient guarantee of their efficiency.

They are so constructed that dry heat or steam can be turned into the sterilizing chamber at will by simply turning a valve. Thus, to prevent condensation, instruments and dressings can be heated by hot air up to about 212° F., then steam can be turned in, and after the articles have been sterilized, they can be thoroughly dried off again.

The Sterilizer consists of a double-walled chamber, the outer wall of which rests on a removable base in a groove forming a water-joint. It contains two wire-cloth racks, one for instruments and one for dressings, etc. The steam is introduced at the top of the sterilizing chamber and passes out of a tube at the bottom.

The base can be utilized to sterilize instruments in a 1% soda solution and the whole upper part used for steam sterilizing at the same time.

There is a corked opening at the top for a thermometer.

The base, with the cover and one of the racks, can also be used separately as an instrument sterilizer.

It is a well known fact that saturated steam in circulation as produced by these sterilizers is a more effective sterilizing agent than the dry steam supplied in Pressure Sterilizers. It is therefore conceded that Rochester Combination Sterilizers are not only cheaper but better. Different designs of them are illustrated on the following pages. Physicians can depend on their reliability.



B1249—1257.

SIZES OF STERILIZING CHAMBERS

	Length.	Width.	Height.		
—*B1249.	14 in.	6 in.	6 in.,	Heavy Tin, Copper Bottom,	\$6 00
—*B1250.	16 in.	6¾ in.	7 in.,	" " " "	7.00
—*B1251.	18 in.	7½ in.	8 in.,	" " " "	8.00
—*B1252.	7½ in.	3½ in.	3 in.,	Polished Copper, Tin-lined,	7 00
—*B1253.	10 in.	4¼ in.	4¼ in.,	" " " "	9 00
—*B1254.	14 in.	6 in.	6 in.,	" " " "	15.00
—*B1255.	16 in.	6¾ in.	7 in.,	" " " "	17.50
—*B1256.	18 in.	7½ in.	8 in.,	" " " "	20 00
—*B1257.	22 in.	10 in.	10 in.,	" " " "	40 00

Nickel-plating \$1, \$1.25, \$1.50, \$2, \$2.50 and \$5 extra according to size.

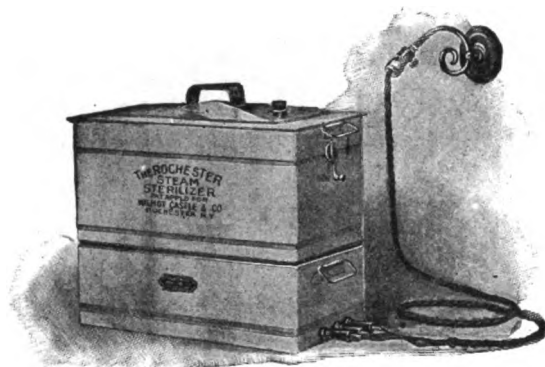
STERILIZERS, INCUBATORS, Etc. ROCHESTER COMBINATION STERILIZERS



B1258—1260.

Also made as shown, with deeper base and faucet from which to draw sterilized water, and a gauge to indicate the height of the water.

	Length.	Width.	Height.	Depth of Base.		
—*B1258.	14 in.	6 in.	6 in.	5¼ in.,	Polished Copper,	\$18 50
— B1259.	16 in.	6¾ in.	7 in.	5¾ in.,	" "	21 25
— B1260.	18 in.	7½ in.	8 in.	6½ in.,	" "	24.00



B1261—1266.

WITH PROMETHEUS ELECTRIC HEATING DEVICE

This device has received the unqualified approval of prominent medical authorities in this country as well as Germany, where the "Prometheus" system is the only practical electric heating system in use.

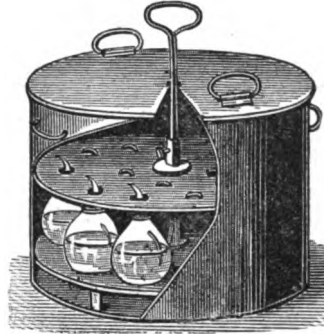
The heater becomes a part of the base of the Sterilizer. This base may be used as a receptacle for heating water if desired.

The cord may be attached to any ordinary lamp socket. In ordering the voltage should be stated, also whether the current is continuous or alternating.

Any apparatus may be equipped with the Prometheus Electric Heater. Estimates furnished on application.

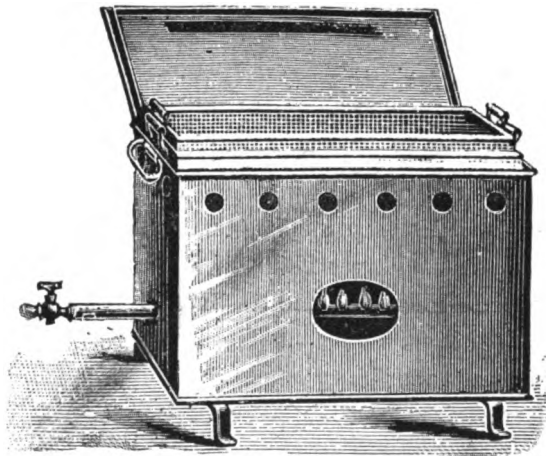
	Length.	Width.	Height.		
—*B1261.	7½ in.	3½ in.	3 in.,	Polished Copper, Tin-lined,	\$18 00
— B1262.	10 in.	4¼ in.	4¼ in.,	" "	22.00
— B1263.	14 in.	6 in.	6 in.,	" "	30 00
— B1264.	16 in.	6¾ in.	7 in.,	" "	35 00
— B1265.	18 in.	7½ in.	8 in.,	" "	40 00
— B1266.	22 in.	10 in.	10 in.,	" "	65 00

Nickel-plating \$1, \$1.25, \$1.50, \$2, \$2.50 and \$5 extra according to size.

STERILIZERS, INCUBATORS, Etc.

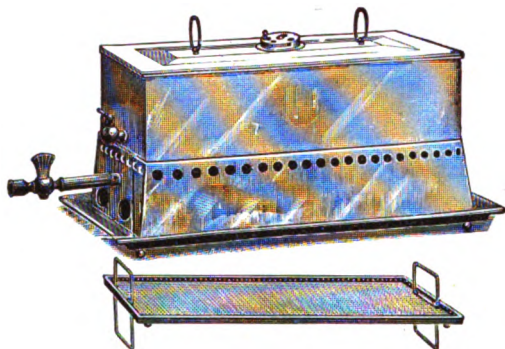
B1267—1267a.

- *B1267. **Sterilizer**, Pasteur's, round form, for sterilizing culture media in solution of Chloride of Calcium, made of copper, with rack for 6 Flasks, - - - - \$25.00
- B1267a. " " " 10 " - - - - 30.00



B1268—1269.

- *B1268. **Sterilizer**, Kitasato's, for sterilizing instruments, used for bacteriological purposes, consisting of water reservoir with hinged cover, wire basket, and solid support; arranged for gas or alcohol lamp.
- Made of brass, nickel-plated, - - - - 15.00
- *B1269. Made of German silver, heavily nickel-plated, - 20.00

STERILIZERS, INCUBATORS, Etc.

B1270--1271.



B1272.

—*B1270. **Sterilizer.** "Franklin," for sterilizing instruments, etc.

They are made of polished copper, nickel-plated, and are mounted on a base 9 cm. high, which rests on a metal tray. It is arranged to be heated by gas, has a valve to drain the water, and a ventilator in the lid for the escape of steam.

Each sterilizer is provided with a perforated, portable tray for immersing and lifting out the instruments. This tray can be further utilized for sterilization of bandages in steam, by turning the movable supports down (as shown on cut). These supports then resting directly on the bottom of the sterilizer, avoid any possibility of the bandages becoming wet.

Small size, 7.5×13×30 cm., - - - - - \$15.00

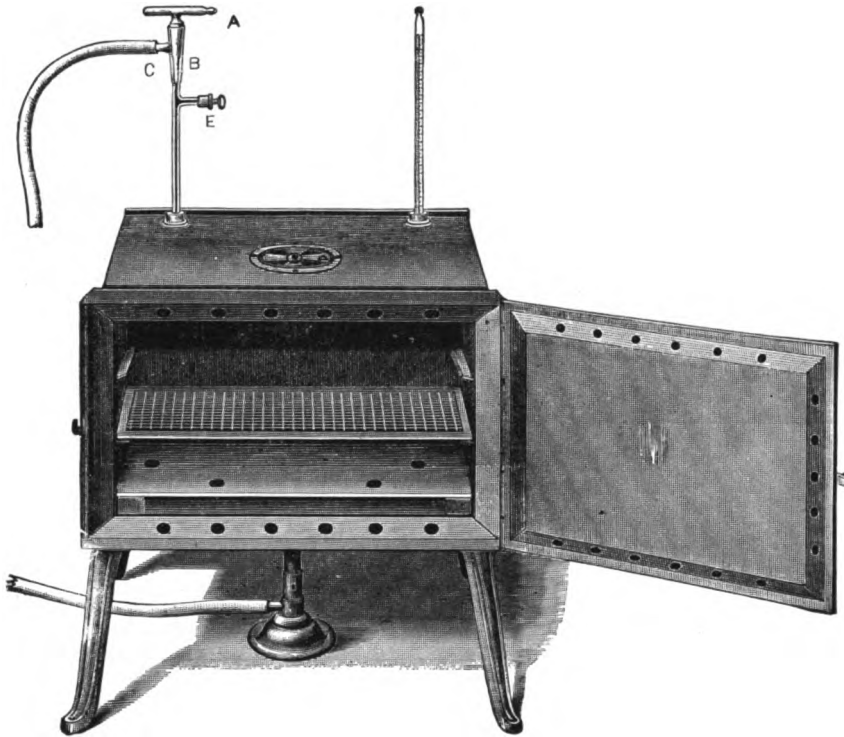
—*B1271. Large size, 12×16×38 cm., - - - - - 18.00

—*B1272. **Sterilizer, Hot Air, Koch's,** of Russian iron, double walled, for high temperature, with 2 tubulures for thermometer and thermostat; ventilator at the top for controlling the temperature, and eyelets to hang against the wall.

Inside dimensions, 30×22×22 cm., - - - - - \$17.50

—B1273. " " 30×22×22 " asbestos covered, 22.50

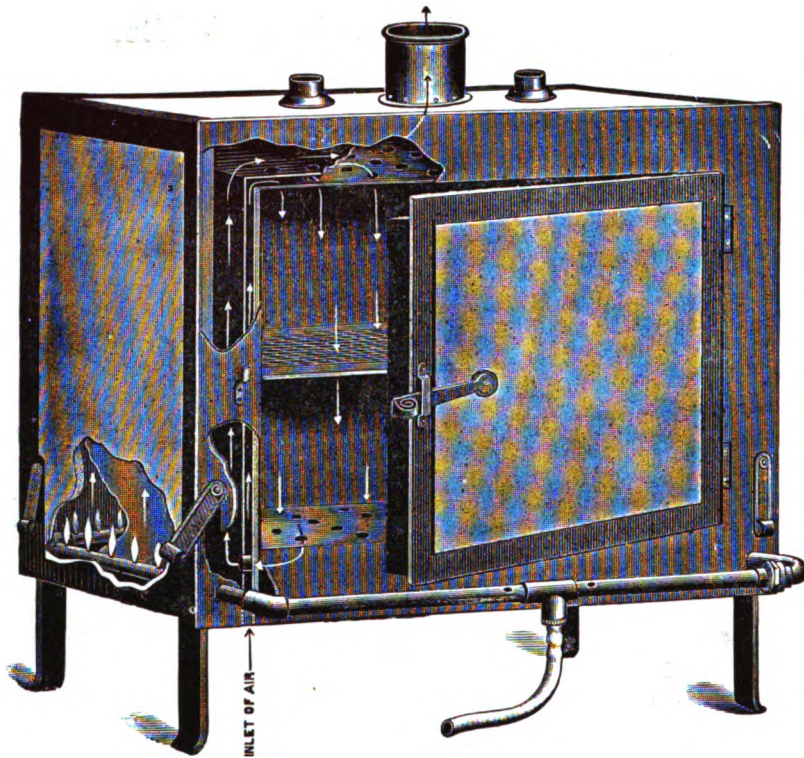
Thermometer, Thermostat and Burner, - - - 4.50

STERILIZERS, INCUBATORS, Etc.

B1274—1277.

Sterilizer, Hot Air, for sterilizing instruments, bandages, etc., in dry heat. This sterilizer is made of the best russia iron, with double walls, constructed so as to produce a uniform heat all around the inside of the oven by connected openings between the double walled door and the oven.

○*B1274.	22 cm. high, 30 cm. wide, 22 cm. deep inside.	-	\$12.50
○ B1275.	22 " " 37 " " 22 " " "	-	13.50
○ B1276.	22 " " 45 " " 22 " " "	-	15.00
○ B1277.	30 " " 60 " " 30 " " "	-	22.50
Thermometer. Thermostat and Burner, - - -			4.50

STERILIZERS, INCUBATORS, Etc.

B1278.

○*B1278. **Sterilizer, Hot Air**, Lautenschlaeger pattern. These sterilizers are made of russia iron, covered with white enameled asbestos, and have the following advantages over the ordinary Hot Air Sterilizers.

The sterilization is done by circulating hot air only. The heating is not done directly from the bottom, but from the sides, as indicated by arrows, thereby securing an even temperature, and not liable to take the temper out of any instrument, even if laying close to the wall; provided with two tubulures for thermometer and thermostat. They can be heated to 150° C. in about 15 minutes. Made in two sizes of dimensions as follows:

○ B1279	Inside, 30 cm. high, 45 cm. wide, 22 cm. deep,	-	\$40.00
	" 45 " " 60 " " 35 " "	-	50.00

Larger sizes made to order.

STERILIZERS, INCUBATORS, Etc.

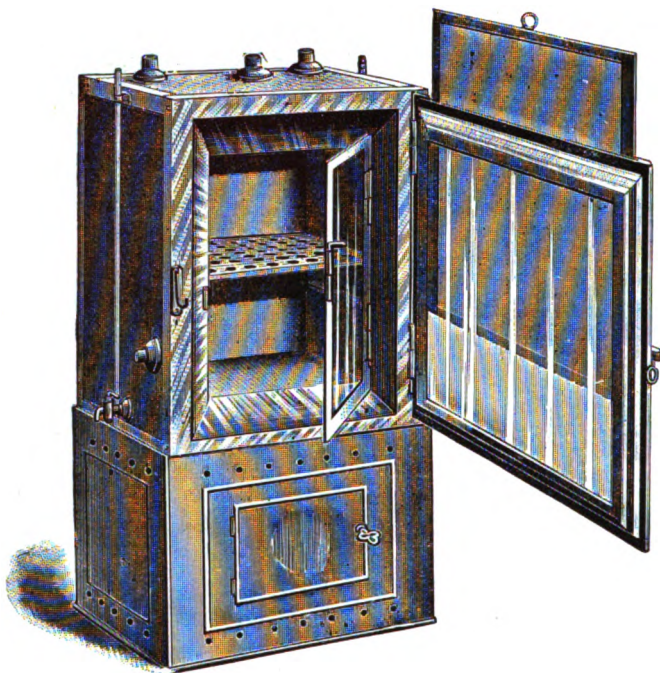


B1280.



B1281-1283.

- *B1280. **Incubator**, small, cylindrical, for **Physicians** and others who desire to make only a small number of cultures at a time; made of polished copper with a 5 cm. water space all around; provided with a perforated tray, water gauge and stop cock.
 Inside dimensions, 20×22 cm.
 Outside " 30×30 cm.
 Price, with sheet iron base, - - - - - \$15.00
- *B1281. **Incubator** of polished copper, lacquered, three walls, with conical bottom, air and water space all around, and covered with insulating material, thus insuring even temperature. It is provided with two doors, the inner one of beveled glass, the outer of copper, double walled, its edges felt lined, making it air-tight. It has tubulures for thermometer, thermo-regulator, and for filling into water space, and ventilator on top. It is provided with a movable shelf, water gauge and stop cock. The base is made of sheet iron, ten inches high, with a door having a mica glass for observation of flame. This base retains the heat and also prevents the flame from being extinguished.
 Inside dimensions, 22×18×18 cm., - - - \$35 00
 " " 30×22×22 cm., - - - 45.00
 —*B1282. " " 30×22×22 cm., - - - 45.00
 —*B1283. " " 37×30×25 cm., - - - 55 00

STERILIZERS, INCUBATORS, Etc.

B1284.

—*B1284. **Incubator**, made of polished and lacquered copper throughout. It has three walls, with water and air spaces all around the oven, ventilator on top, and is covered with an insulating material. The inner and outer doors are of glass, the latter having a sliding and removable insulating cover for observation. The edges of both doors are felt-lined, making the apparatus air-tight. The oven has a conical bottom and is provided with a removable shelf, water gauge, drip cock and tubulures for Thermometer and Gas Regulator.

The base is made of sheet iron, with a door having a mica glass for observation of flame, thus retaining the heat and at the same time preventing the flame from being blown out.

Inside dimensions, 22×30×22 cm.

Outside dimensions, 35×65×33 cm.

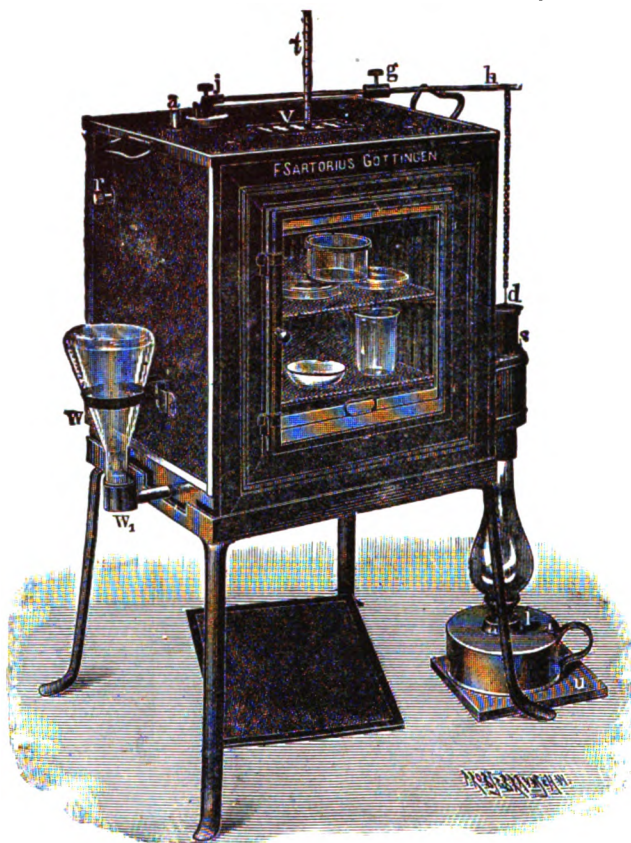
The base is 25 cm. high, - - - Price, \$45 00

STERILIZERS, INCUBATORS, Etc.

B1286—1287.

- B1285. **Incubator**, large size, made of copper. These Ovens are for constant low temperature, made of copper, with conical bottom and three walls, having an air and water space all around the oven to insure even temperature. The inner doors are of beveled plate glass and the outer ones of copper, double walled. The edges on both doors are felt-lined to make the oven air-tight. It is provided with removable shelves, water-gauge, drip cock and tubulations for Thermometer and Gas Regulator. The whole oven is covered with heavy sheet asbestos, white enameled, mounted on iron stand, 75 cm. high, with sheet iron enclosure for burner, japanned black. They are made in the following sizes :

		high	wide	deep			
—*B1286.	Single door Incubator,	45	× 45	× 30 cm.,	-	-	\$90 00
	Double door Incubator,	45	× 75	× 35 cm.,	-	-	130 00
—*B1287.	Double door Incubator,	60	× 75	× 45 cm.,	-	-	175 00
	Inside measurements.						

STERILIZERS, INCUBATORS, Etc.

B1288—1291.

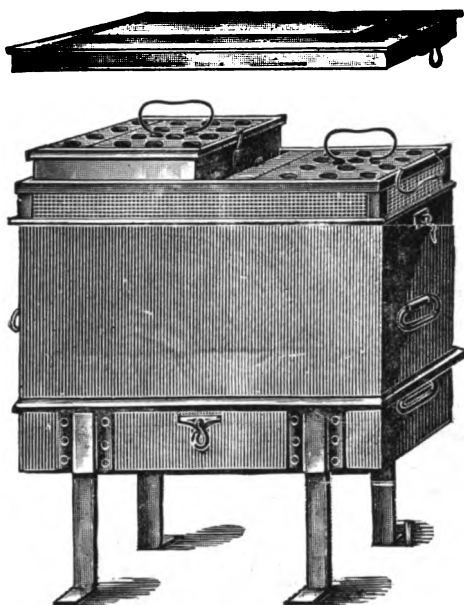
- B1288. **Incubator**, Koch's, new and improved form, with one inch corrugated water space, heated with a petroleum lamp; indispensable where gas is not available, provided with automatic heat regulator. It has a glass-door nearly one half inch thick, in metal-frame and felt-lined, preventing the heat from escaping and insuring uniform temperature. Prices include waterlevel and kerosene-lamp.

Inside dimensions, - -		25×25×25 cm.	40×25×25 cm.
Outside of wood, water jacket of zinc or lead-lined steel plate, - - -		\$25.00	\$37.50△
○ B1289.	All metal, japanned outside, water jackets as before, - - - - -	32.50	47.50△
○ B1290.	Heating chamber and water jacket, of heavy copper, - - - - -	42.50△	55.00△
○*B1291.	All metal, water jacket of heavy copper, outside covered with felt and oil-cloth, - - - - -	50.00△	62.50△

Directions are furnished with each apparatus.

Above Incubators can also be arranged for Bunsen gasburners at the same prices.

STERILIZERS, INCUBATORS, Etc.



B1292.

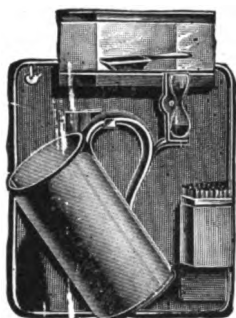


B1297—B1299.

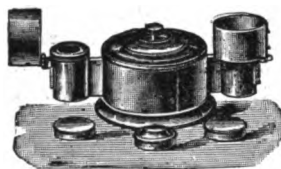
- *B1292. **Sterilizer**, according to Dr. Schimmelbusch, combination for sterilizing culture plates, instruments, bandages, etc., made of copper, nickel-plated, complete with wire-tray, two specially constructed alcohol lamps, one large wire basket and two baskets with lock; size of sterilizer:

50 cm. long \times 50 cm. wide, - - - - - \$47 50 Δ

Ditto, but with gas burner (A) - - - - - 46.50 Δ



B1293.



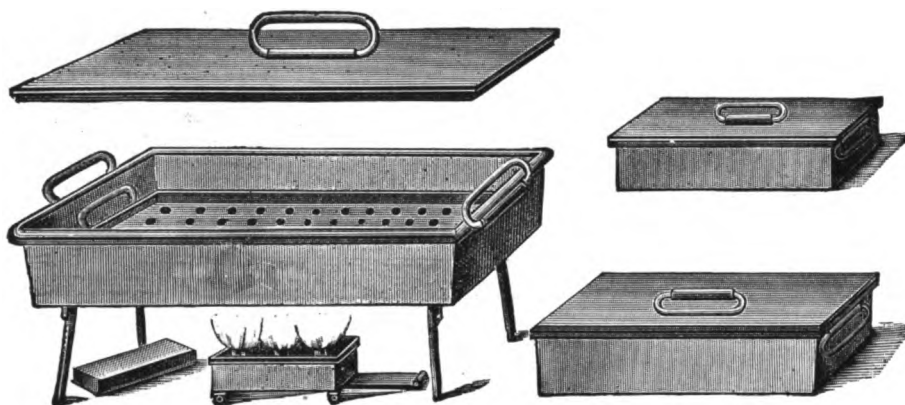
B1292 A.

- *B1293. **Wall tray** for above, brass, nickel-plated, with glass container, soda spoon, liter measure, 5 minutes sand-glass and match box, complete, - - - - - \$6.50 Δ
- B1293 a. **Wall tray**, ditto, triangular, smaller, - - - - - 5.00 Δ

DIRECTIONS FOR USING THE INSTRUMENT BOILER

Fill the boiler to a height of about 4 cm. with a liter measure, adding for each liter of water one spoonful of soda, thus obtaining a 1% soda solution. After getting this solution to boiling, insert the wire trays containing the instruments and steam them 5 minutes, noting the time by the sand-glass. This done, take out the trays and place them in the cooling tray filled with a 3% Carbolic soda solution.

STERILIZERS, INCUBATORS, Etc.



B1294.

- *B1294. **Sterilizer**, according to Dr. Rotter, for sterilizing instruments; compact, portable, simple and inexpensive. It is provided with three pans, with perforated trays and covers, folding stand, 7 cm. high, and wickless alcohol lamp, asbestos filled. Instruments can be sterilized in this apparatus in four to five minutes.

	Made of sheet iron, heavily tinned, complete, - -	\$7.50
○B1295.	“ “ copper, “ nickel-plated, complete, -	10 00
○B1296a.	Large pan with perforated tray, alone, - - -	4 00
○B1296b.	Medium “ “ “ “ “ - - -	3 30
○B1296c.	Small “ “ “ “ “ - - -	2.50

- *B1297. **Sterilizer**, according to Dr. Schimmelbusch, for sterilization of instruments in 1% soda solution. It consists of box with corrugated bottom and close-fitting cover to prevent escape of steam, three wire trays with wooden handles, a cooling tray, a glass container with cover and a measuring spoon. The instrument boiler is heated by means of a heating coil for gas. The whole is of heavily nickel-plated German silver. (See illustration, page 75.)

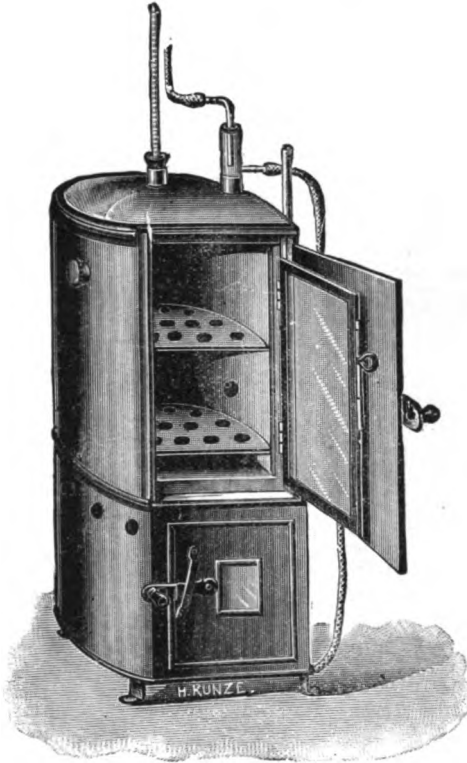
	Size 25×14 cm., - - - - -	\$10 00 Δ
—*B1298.	“ 30×20 cm., - - - - -	45 00 Δ
—*B1299.	“ 40×20 cm., - - - - -	50 00 Δ

Larger sizes made to order.

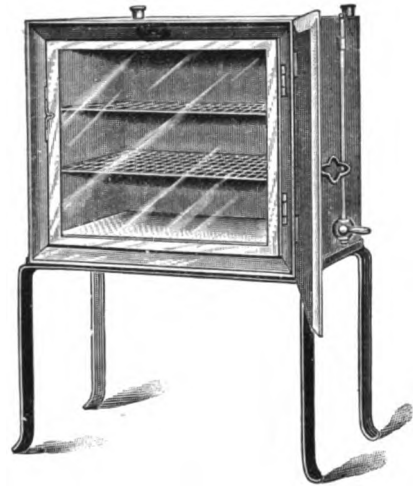
- *B1300. **Incubator**, rectangular form, double walled, of lead-lined steel plate, felt covered, with glass lid, gauge and stopcock. (Illustration see page 77.)

	Inside dimensions. 25×25×25 cm., - - -	\$15.00
*B1301.	“ “ 50×25×25 cm., - - -	20.00

These sterilizers can be arranged for alcohol or kerosine burners, steam or electric heat.

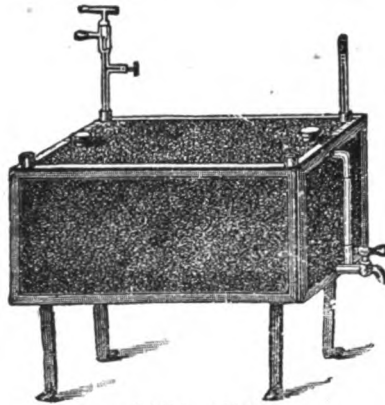
STERILIZERS, INCUBATORS, Etc.

B1302.



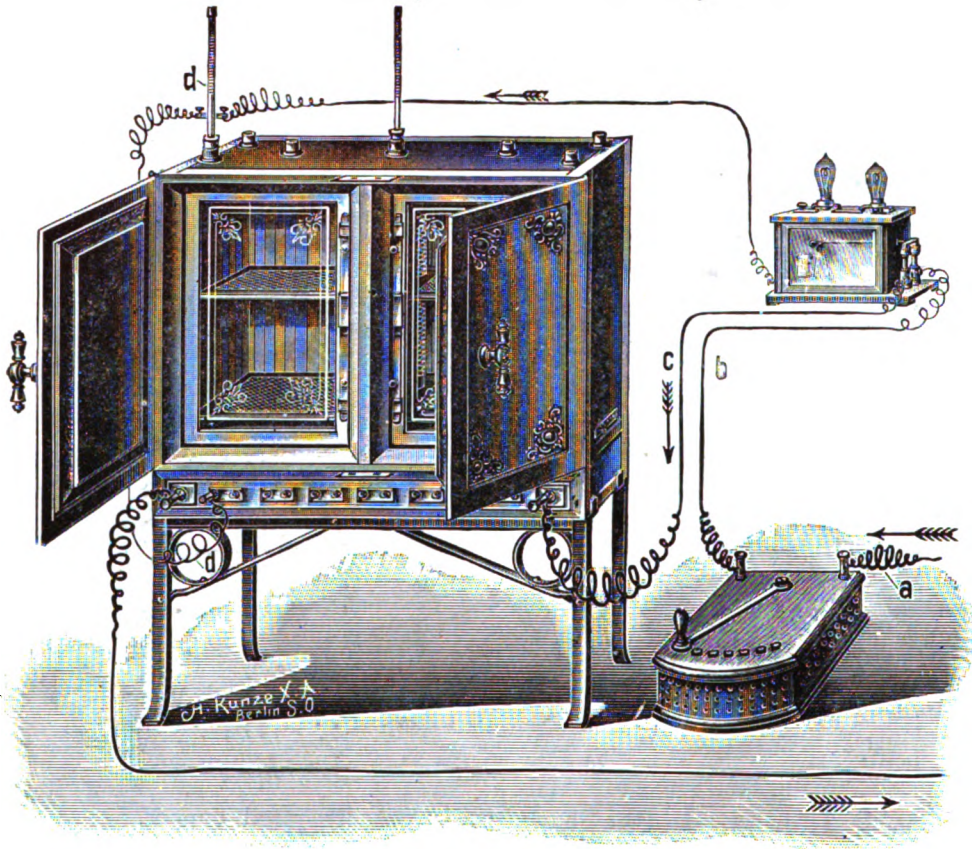
B1303.

*B1302. **Incubator**, oval shape, made of corrugated copper, size $40 \times 35 \times 25$ cm., as per illustration, - - - $\Delta \$100.00$



B1300—1301.

—*B1303. **Incubator**, made of polished copper, double walled, having a 5 cm. water space, provided with double doors, the inner of glass and the outer of copper, with water-gauge and stopcock with tubulations for thermometer and thermo-regulator on sheet iron bottom, with japanned iron stand, mounted on 4 detachable iron legs.
 Inside dimensions, $30 \times 25 \times 25$ cm., - - - $\Delta \$28.00$

STERILIZERS, INCUBATORS, Etc.

B1304—1305.

- *B1304. **Incubators, electrically heated**, for bacteriological work, double walled, for water filling. This incubator is heated economically by numerous tubes, containing the wires, evenly placed around the working space, the water circulating around these tubes, thus minimizing loss of heat. It is covered with linoleum, has tubulations on top for water filling, thermostat, thermometer, etc., is provided with perforated removable shelves, and rests on an iron support.

Height of working space,	-	-	-	25	40	40 cm.
Width " " "	-	-	-	25	25	50 cm.
Depth " " "	-	-	-	25	25	28 cm.

Price, without rheostat and thermo-regulator,

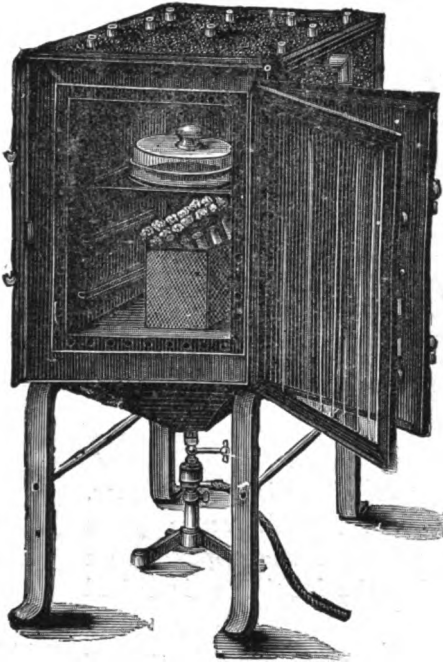
made of leaded russia iron,	-	-	-	\$40.00	50.00	72.50 Δ
working space made of corrugated copper	-	-	-	80.00	100.00	140.00 Δ

- *B1305. **Thermoregulator, electric**, for above, automatically working. It consists principally of a mercury interrupter, connected with the shunt-end released by an electromagnet, which is in turn connected with the interrupter. As soon as the temperature of the incubator reaches a higher degree than set the current is shut off. The main circuit is re-opened as soon as the temperature is lowered again. A signallamp is connected with this interrupter which is lighted as soon as the main current is interrupted, and extinguished when the temperature is lowered again to its required height, thus enabling the worker to watch the incubator even from a distance.

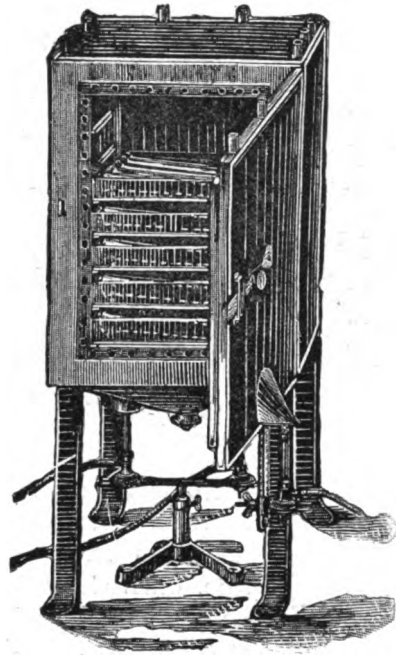
Price of the regulator in polished wooden box with glasswindow, signallamp

and mercury interrupter,	-	-	-	-	-	\$42.00 Δ
Without the interrupter, less,	-	-	-	-	-	10.00
Extra signallamps,	-	-	-	-	-	each, .50

- B1306. **Sterilizer, Electrically heated**, with rheostat attached, inside space 20×20×20 cm, - 50.00

STERILIZERS, INCUBATORS, Etc.

B1307.



B1308.

- *B1307. **Incubator**, made of copper, double walled, with water space; it is provided with tight closing double doors, the inner ones of glass. The apparatus is covered with linoleum, and has a metal tube for the thermo-regulator. It is mounted on a heavy iron frame support, and is provided with a Koch's safety burner, having an adjustable mica chimney, on an adjustable holder attached to the support. Size inside 38×25×25 cm. Price complete with burner, thermo-regulator and thermometer, - - - - \$85.00△
Price of Incubator alone, - - - - 60.00△
- *B1308. **Inspissator**, or apparatus for coagulating bloodserum acc. to Hueppe; made of leaded sheet iron; it has a conical bottom, isolated insertion, and a complete linoleum or asbestos covering; six heating tubes and double walled door, which can be heated separately. Two wire baskets for vertical, five adjustable trays for keeping test tubes in a slanting position, two-arm burner and separate burner are furnished with this apparatus; inside measure 20×20×26 cm., - - - - \$60.00△

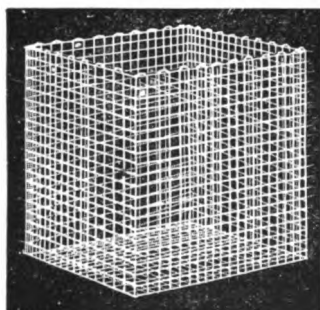
STERILIZERS, INCUBATORS, Etc.

B1312.

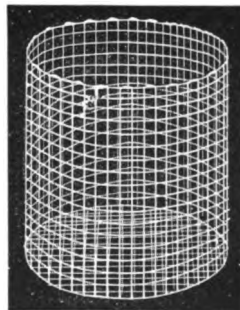


B1315.

- *B1312. **Inspissator, or Apparatus for solidifying and coagulating blood serum**, according to Koch. These ovens are made of copper, double walled, heavily tinned on the inside and covered with insulating material. The glass top is covered with heavy felt. It has two openings for thermometer and gas regulator, is provided with water level and drip cock and is supported on four legs; the two front ones slotted and moving in grooves, allowing the oven to tilt forward. For 25 Testtubes - - - - - \$12.50
 — B1313. " 50 " - - - - - 16.00
 — B1314. " 100 " - - - - - 20.00
 If made of tinned steel plate, 20% less.
- *B1315. **Inspissator**, Koch's improved form of No. 1312-1314, with holes near the top and air vent for equal distribution of heat, - - - - - additional, 3.50

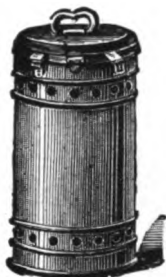
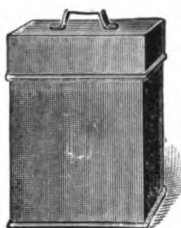
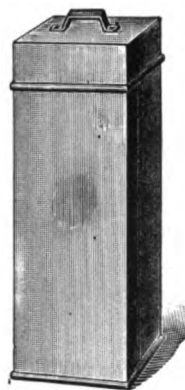


B1316a.



B1316b.

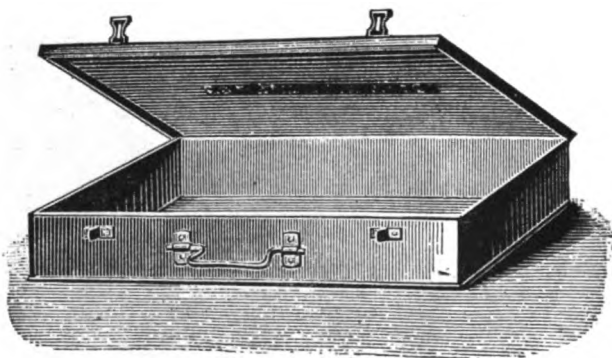
- *B1316. **Baskets**, of galvanized iron gauze, to hold test tubes during sterilization.
 a) Rectangular, 22×12×14 cm., - - - each, .60
 b) Round, 23×23 cm., - - - each, .70
 Any other dimensions made to order.

STERILIZERS, INCUBATORS, Etc.**B1317.****B1318a.****B1318b.**

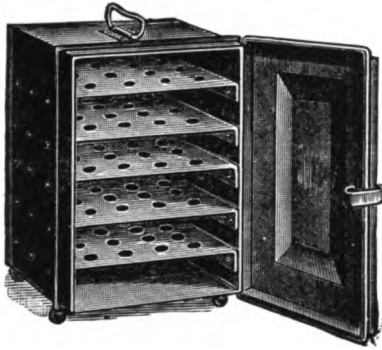
- *B1317. **Basket** of copper, nickel-plated, acc. to Dr. Schimmelbusch for sterilizing various objects; cover on hinges; sterilizer arranged for locking with key; openings on side can be closed after sterilization; 20 cm. diameter, \$4.50
 25 cm. diameter, - - - - - 6.00
 35 cm. diameter, - - - - - 10.00

Larger sizes imported to order.

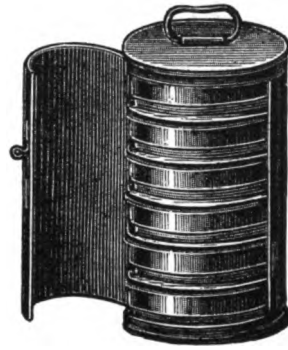
- *B1318. **Boxes**, of sheet iron, with deep overhanging cover.
- | | |
|---|------|
| a) For sterilizing culture plates, size 5×9×12 cm., | 1.00 |
| 5 ×12×15 cm., - - - - - | 1.25 |
| 7½×16×18 cm., - - - - - | 2.00 |
| b) For sterilizing pipettes, size 4×6×20 cm., each, | 1.00 |
| Made of copper, - - - - - each, | 1.50 |

**B1319.****B1320.**

- *B1319. **Case**, of brass, acc. to Israel, with sliding rack for sterilizing small instruments, like knives, forceps, scalpels, etc., \$4.00
- *B1320. **Case**, of copper, with hinged cover, for sterilizing larger instruments. 46×23×80 cm. inside dimensions, - 12.00

STERILIZERS, INCUBATORS, Etc.

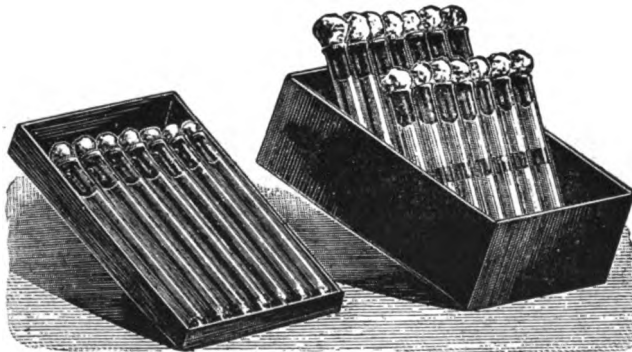
B1321a.



B1321b.

—*B1321. **Case**, of copper, nickel-plated, according to Dr. Pfuhl, for sterilization and sterile transportation of Petri and other glass dishes, size $18 \times 12 \times 12$ cm. with five shelves.

a) Square form,	-	-	-	-	-	-	-	\$6.00
b) Round form,	-	-	-	-	-	-	-	7.50



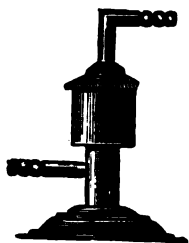
B1322.

*B1322. **Trays**, of copper, adjustable, for holding serum tubes, in sterilizers or incubators.

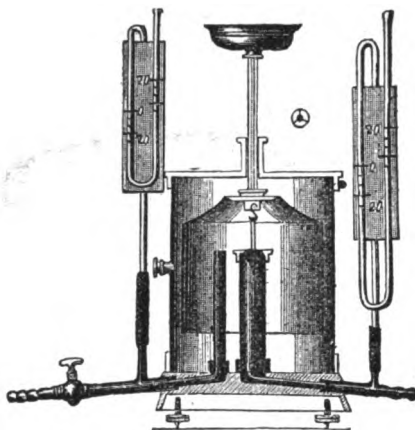
a) Plain, low form,	-	-	-	-	-	-	\$3.00
b) With shelf, deep form,	-	-	-	-	-	-	5.00

Gaspressure and Gas- or Thermo- REGULATORS

For Incubators, Sterilizers, Etc.



B1323.

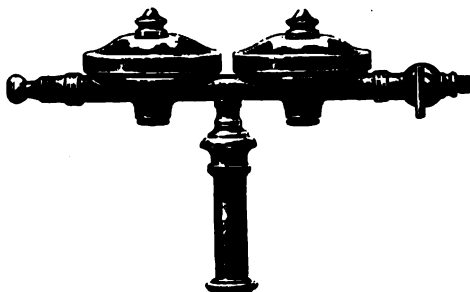


B1324.

- *B1323. **Regulators, Gas Pressure, Giroud's, wet rheometer,** for glycerine, with two outlets, for gas and water, - \$4.00
 —*B1324. **Regulator, Gas Pressure, Moitessier's, for glycerine** filling, of heavy polished brass, with two manometers, regulating stopcock and leveling screws, - - - 18.00



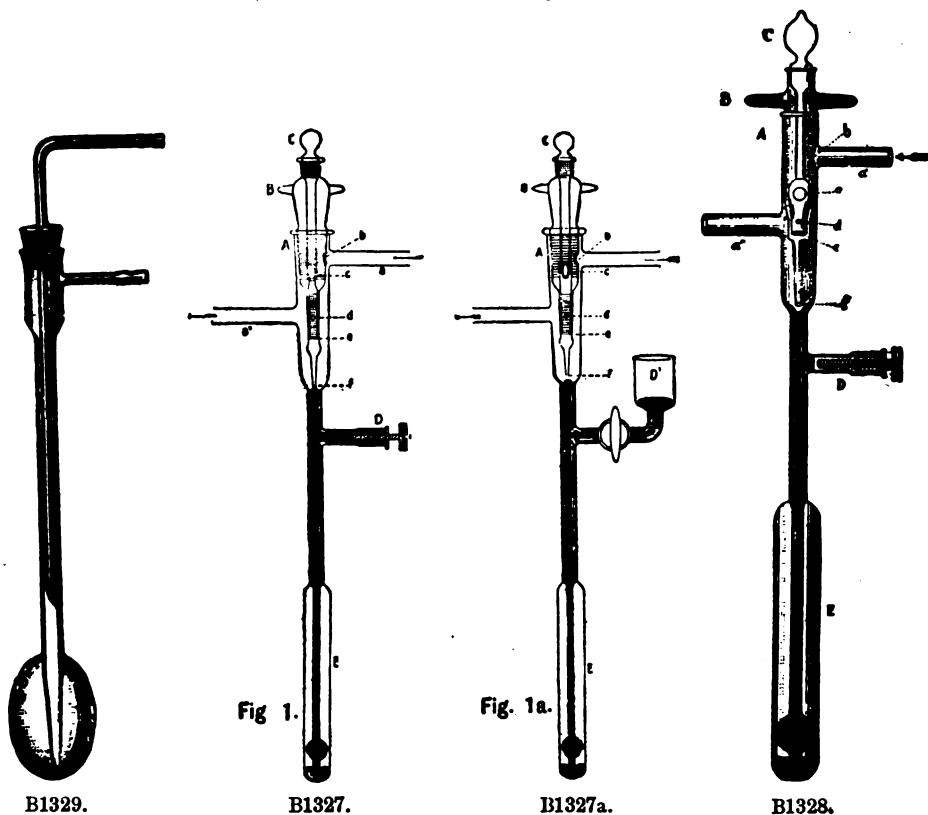
B1325.



B1326.

- *B1325. **Regulator, Gas Pressure, Murrill's, latest, most convenient and cheapest form,** for use with a thermostat; temperature may be held constant within 0.1°C , - \$7.00
 —*B1326. **Regulator, Gas Pressure, dry, with regulating stopcock,** - - - - - 7.50

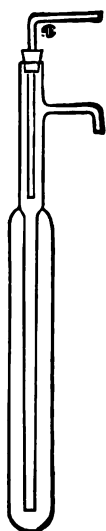
GAS- OR THERMO-REGULATORS FOR INCUBATORS, STERILIZERS, Etc.



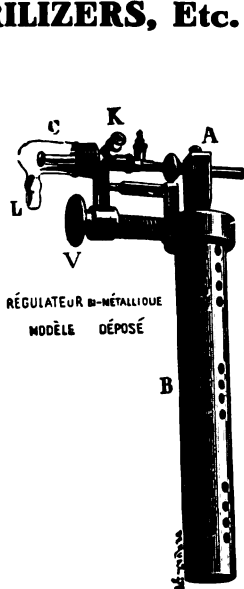
- | | | |
|----------|--|--------|
| *B1327. | Regulators, Thermo, Prof. Novy's latest forms, having many advantages over the earlier forms; the gas supply can be cut down with safety; very economizing. With metal set screw, | \$5.00 |
| B1327a. | With reservoir on side and stopcock, for refilling, | 7.00 |
| *B1328. | Regulator, Thermo, Dr. Novy's, improved form; works exceedingly well, especially when connected with Murrill's gas pressure regulator. (See fig. 1325.) | 5.00 |
| *B1329. | Regulator, Thermo, Soxhlet's, simple and very sensitive, | 1.00 |
| *B1330. | Regulators, Thermo, Bunsen-Kemp, in metal frame, | 3.50 |
| —*B1331. | Regulator, Thermo, a precision regulator, made entirely of metal, for keeping temperatures in sterilizers etc. absolutely constant within 0.1° C. Very practical, no mercury being used, needs little if any repairing, does not change and can be put to use instantly; price, | △30.00 |
| *B1332. | Regulator, Thermo, Dunham's, for incubators and other purposes, where exact temperatures are required; | |
| | glass parts only, | 2.00 |
| | Filled, ready for use, | 3.50 |

B1330—1332 illustrated on page 86.

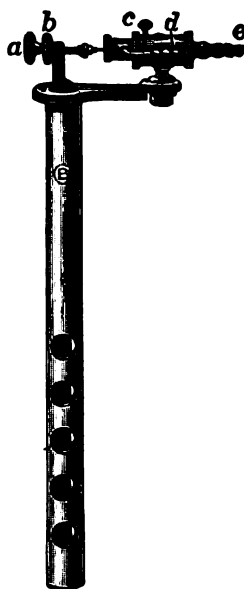
GAS- OR THERMO-REGULATORS FOR INCUBATORS, STERILIZERS, Etc.



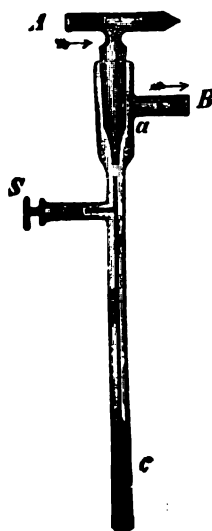
B1332.



B1333.



B1334.



B1335.

—*B1333. **Regulator, Thermo,** Roux's bimetallic, allowing an easy and absolute regulation of temperature without mercury or any kind of liquid;

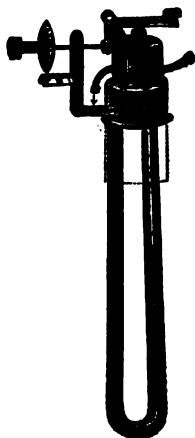
the genuine {	Length,	15	25	40	cm.
	Price,	\$10.00	20.00	22.50	each.

—*B1334. American make,

25 cm.	30 cm.
\$7.00	\$7.50



B1330.



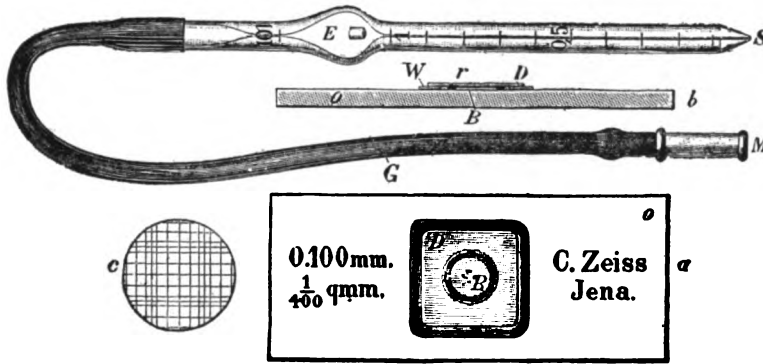
B1331.



B1339.

- | | | |
|---------|--|--------|
| *B1335. | Regulator, Thermo, Reichert's, for high temperatures, straight, | \$2.50 |
| B1336. | Regulator, Thermo, Reichert's, bent at right angle, | 2.75 |
| B1337. | Regulator, Thermo, Reichert's, for low temperatures, straight, | 3 25 |
| B1338. | Regulator, Thermo, Reichert's, bent at right angle, | 2.75 |
| *B1339. | Regulator, Thermo, Reichert's, with stopcock, straight, | 4.00 |
| B1340. | Regulator, Thermo, with stopcock, bent at right angle, | 4.25 |

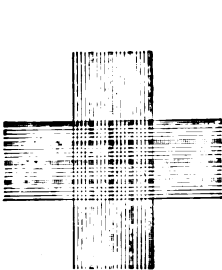
Apparatus for the Examination of Blood



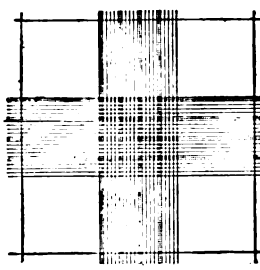
B1341—1343.

Haemacytometer, Thoma's, made by Zeiss, in lined case, with instructions,

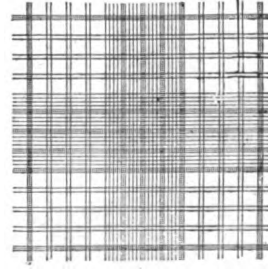
- | | | |
|----------|---|---------|
| ○*B1341. | With pipette for red or for white corpuscles, - - | \$10.90 |
| ○ B1342. | With both pipettes, - - - - - | 15.10 |
| ○*B1343. | Pipettes , mixing for above, for either red or white corpuscles, - - - - - each, | 3.80 |
| ○ B1344 | Coverglasses for above, 0.4 or 0.6 mm. thick, each, | .30 |



B1345.



B1346.

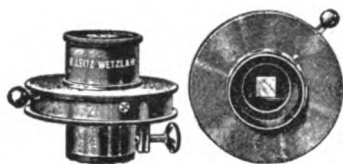


B1347.

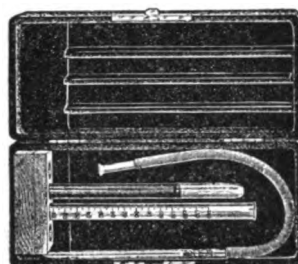
- | | | |
|----------|---|------|
| ○*B1345. | Counting Chambers , Thoma's, without case, - | 5.05 |
| ○*B1346. | Counting Chambers , Zappert's, without case, - | 5.75 |
| ○*B1347. | Counting Chambers , Tuerk's, without case, - | 7.15 |
| | Counting Chambers , other, than here listed, see Zeiss' special list. | |
| ○ B1348. | Counting Chamber Stage , for moving same slowly in one direction, - - - - - | 5.70 |
| ○ B1349. | Eye-piece Crossline Micrometers , 1.0 mm. or 0.5 mm. sides, - - - - - each, | 2.10 |
| ○ B1350. | Stops , Ehrlich's, set of 7 graduated square openings, from 1 mm. to 10 mm. sides, - - - - - | 3.80 |

5% discount allowed on prices on this page, if paid within 10 days.

APPARATUS FOR THE EXAMINATION OF BLOOD



B1351.

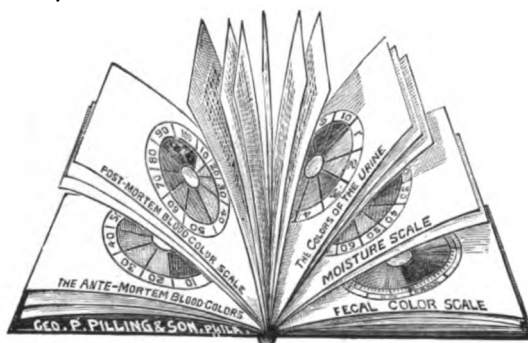


B1353.

- *B1351. **Eyepiece**, Ehrlich's, provided with an adjustable square diaphragm, facilitating the estimation of the relative numbers of red and white blood corpuscles in dry preparations, - - - - - Δ \$15.00
- B1352. **Haemacytometer**, Gower's, complete in case, with instructions, - - - - - Δ 30.00
- *B1353. **Haemaglobinometer**, Gower's, simple form, in case, with instructions, - - - - - 2.50
- B1353a **Haemaglobinometer**, Gower's, improved form. in case, with instructions, - - - - - 10.00
- B1354. **Haemometer**, Sahli's, - - - - - 7.50



B1355.

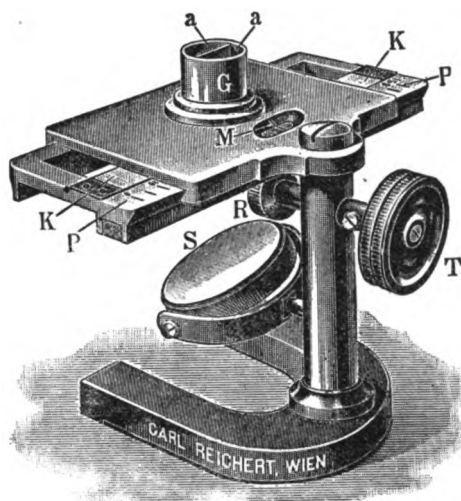


B1356.

- *B1355. **Haemometer**, new pocket, for the exact determination of haemoglobin in blood. A practical instrument for the general practitioner, differing from the Gowers by having a standard ruby glass plate, which does not change the color, - - - - - Δ \$12.00
- *B1356. **Haemoglobin Scale and Color Testbook**, Wetherill's, for the better determination of Haemoglobin Moisture, Perspiration, Urine and the color of the Feces. A pocket size book of practical tests.

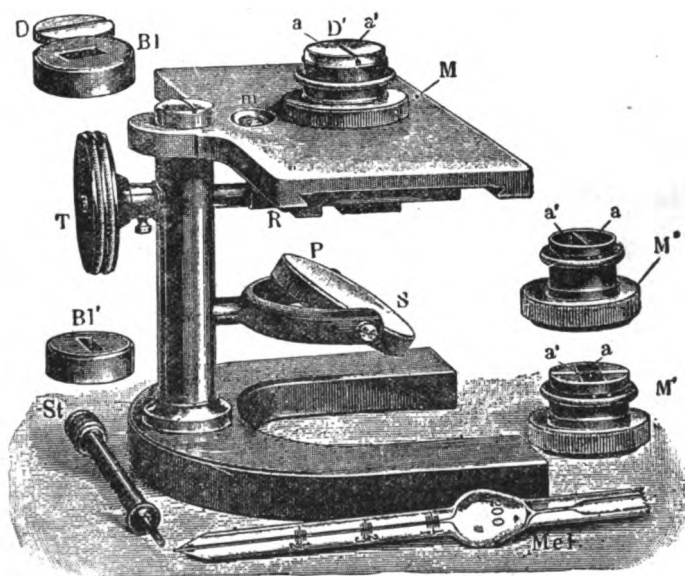
Price, 1.50

APPARATUS FOR THE EXAMINATION OF BLOOD



B1357.

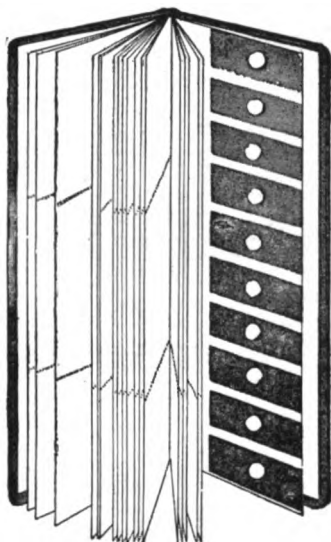
- *B1357. **Haemometer**, Fleischl's, for the accurate and rapid determination of normal haemoglobin in the blood, in velvet lined case, with instructions, - - - \$25.00
- Its advantages over similar Haemometers now in use are the following:
 Its manipulation is easier and requires less care.
 The percentage of normal haemoglobin can be read off rapidly and surely.
 But a small quantity (1 drop) of the blood to be examined is required.



B1358.

- *B1358. **Haemometer**, Fleischl's, improved by Miescher, differing from the former in being more exact, and in the direct reading of absolute Haemoglobin percentages; in velvet lined case, with instructions, - - - \$45.00

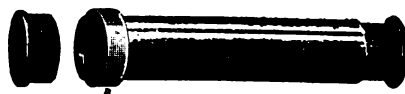
APPARATUS FOR THE EXAMINATION OF BLOOD



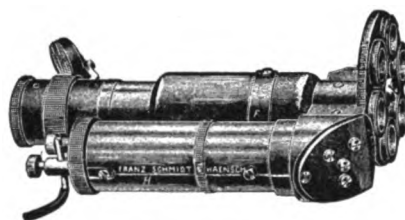
B1362.



B1361.



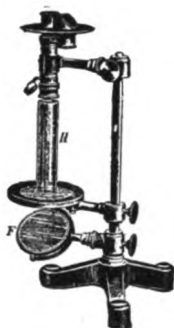
B1365.



B1366.

- | | | |
|-----------|--|---------|
| ○ B1359. | Extra Capillary Tubes , for Fleischl's Haemometer, | \$1.25 |
| ○ B1360. | Extra Mixing Pipettes , " " " | 2.00 |
| —*B1361. | Lancet , Laker's, for taking blood samples, - - - | △ 2.00 |
| —*B1362. | Haemoglobin Scale , Tallquist's, a very simple and practical means for testing the percentage of haemoglobin in the blood, consisting of 50 sheets of 3 each perforated strips of a standard absorbent paper, with a scale attached showing the tints of haemoglobin ranging from 10% to 100%; the whole bound in bookform, - - - - - | 1.50 |
| — B1363. | Haematinometer , Hoppe-Seiler's, for measuring blood corpuscles, - - - - - per pair, | △ 15.00 |
| — B1364. | Hydrometer for specific gravity determination of blood, according to the Hammerschlag method, - - - | 1.50 |
| —*B1365. | Spectroscope , pocket, direct vision, for the spectroscopic examination of blood, in leather cover, - | 11.50 |
| —*B1366. | Spectroscope , pocket, direct vision, with scale, comparison prism and illuminating mirror, and with electric lighting arrangement, as illustrated, in case, - | 34 00 |
| — B1366a. | Ditto, ditto, without electric light attachment, in case, - | 22.00 |
| —*B1367. | Spectroscope Stand , universal, with illuminating mirror, absorption trough and absorption tube with table support for same, clamp, and spectrum stand, as illustrated, incl. 6 glass tubes with fused-in platinum wires; in polished wooden cabinet. Price complete, | 25.50 |
| | See illustration page 91. | |
| —*B1368. | Spectroscope , Kirchhoff-Bunsen, with telescope for the millimeter scale and illuminating lamp for same, with adjustable slit, 2 Bunsen burners, 12 platinum wires fused in glass and 2 stands for same, 2 spectroscopic charts and 5 millimeter-scales, - - - | 52.00 |
| | See illustration page 91. | |

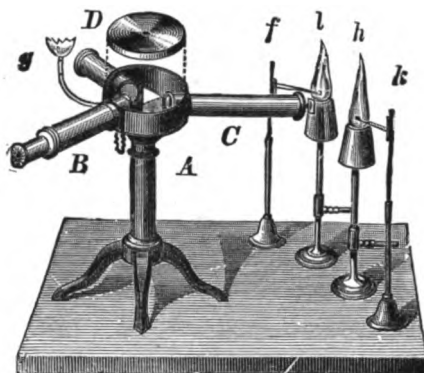
APPARATUS FOR THE EXAMINATION OF BLOOD



B1367.



B1368.



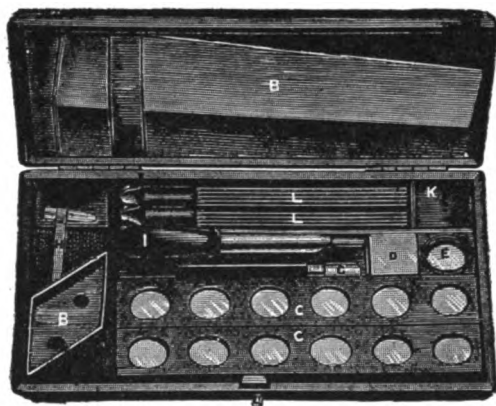
Centrifuges for blood examinations, see Index.

Drying Ovens for blood serum, see Index.

Haematocrit Attachments for Centrifuges, see Index.

Warming Tables for fixing blood preparations, see page 49.

Warming Chambers for microscopes, see page 42.



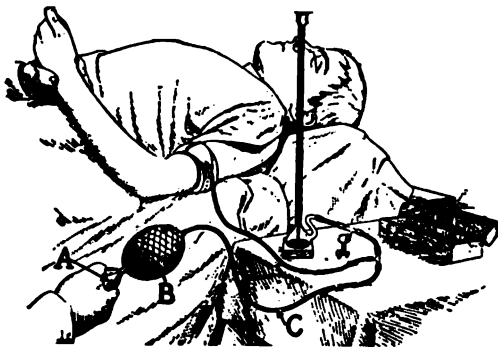
B1370.



1369.

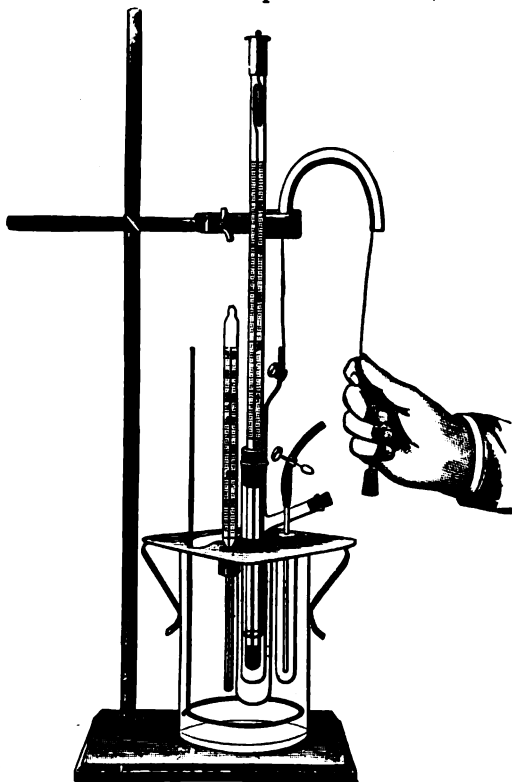
- *B1369. **Cell Counter**, according to Drs. Einhorn and Laporte, for red corpuscles, engraved on glass, in box, - \$2.50
- *B1370. **Haemoglobinometer**, Lovibond's, with candle light standards, complete set in case, as illustrated, - Δ 45.00
- B1371. **Haemoglobinometer**, Dr. Oliver's observation instrument, - - - - - Δ 15.00
- B1372. **Haemocytometer**, complete set, consisting of lancet, standard, graded tube, 10 cmm. measuring pipette, stoppered bottle for Hyam's solution, and two stoppered tubes, in pocket case, - - - - - Δ 21.00
- For blood determination, in portable case, - - - 35.00

APPARATUS FOR THE EXAMINATION OF BLOOD

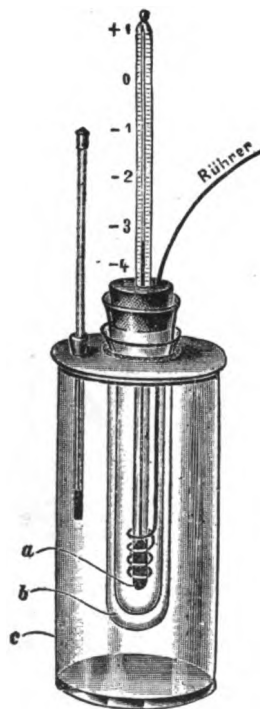


B1373.

- *B1373. **Sphygmomanometer**, Riva-Rocci's, modified by Dr. Cook, for measuring the pulse force; made of one piece, for hospital use, complete with accessories, - \$6.50
- B1374. **Sphygmomanometer**, as above, but with jointed manometer, portable form, in small plush-lined case, - 8.50



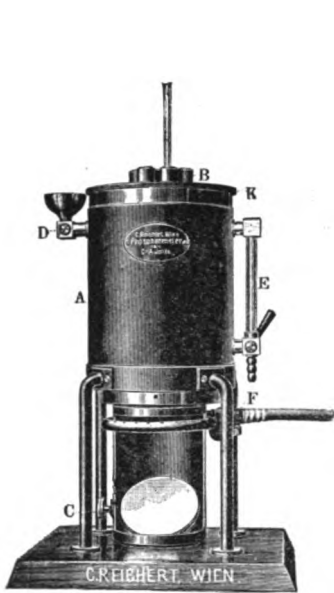
B1375.



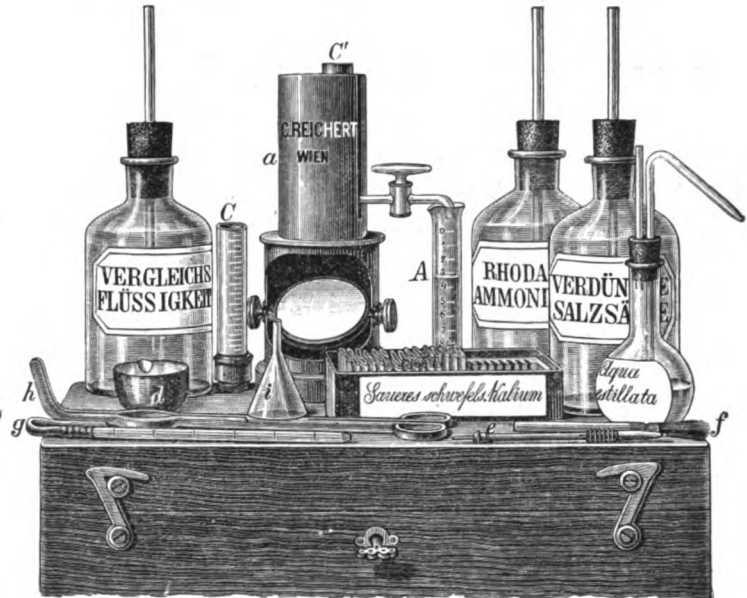
B1376.

- *B1375. **Apparatus**, Beckmann's, for determining the **freezing point of liquids**, specially adapted for the clinical use in blood, urin, etc. examinations, complete with platinum stirrer and thermometer in $\frac{1}{100}^{\circ}$ C., without support, - \$32.50
- *B1376. **Cryoscope**, for same purpose, complete with 2 thermometers, one in $\frac{1}{100}^{\circ}$ C., and one $-30^{\circ} + 50^{\circ}$ C. in $\frac{1}{1}$, as per illustration - - - - - 15.00

APPARATUS FOR THE EXAMINATION OF BLOOD



B1377.

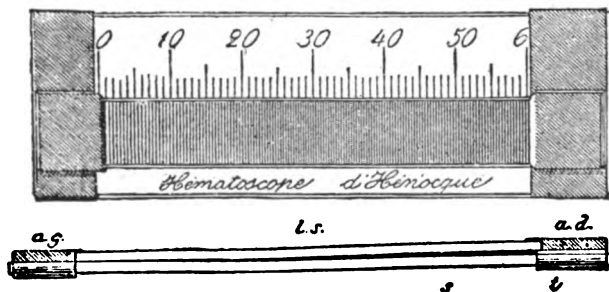


B1378.

- *B1377. **Ferrometer**, Dr. Jolles' new clinical, for the quick and accurate determination by the colorimetric method of the percentage of iron in blood, requiring but a minimal amount of blood, made in two combinations:
- | | | | | |
|---|---|---|---|-----------|
| Combination I, with <i>all</i> accessories, | - | - | - | △ \$57.50 |
| Combination II, | - | - | - | △ 27.50 |

- *B1378. **Phosphometer**, Dr. Jolles', for the clinical determination of the percentage of phosphorous blood, also requiring but a minimal quantity of blood.
- | | | | | |
|---|---|---|---|---------|
| Combination I, with <i>all</i> accessories, | - | - | - | △ 90.00 |
| Combination II, | - | - | - | △ 60.00 |

The above two are accessory apparatus to v. Fleischl's and Fleischl-Miescher's Haemometers.



B1379.

- *B1379. **Haematoscope**, Henocque's, clinical model, consisting of the Haematoscope proper, an enameled plate, needles, scale, in covered box, - - - - - △ \$13.50

APPARATUS FOR THE EXAMINATION OF BLOOD

○*B1380. **Clinical Apparatus Case**, portable, according to Dr. Camac, for bacteriological, chemical and physical examinations at bedside.

The leather case without any apparatus, - - - \$15.00

The case complete with the apparatus named on page 110, - - - - - 65.00

(Illustration, see page 110.)

B1381. **Blood Work Test Solutions**, according to Dr. Thomas Brown, in 2 oz. glass stoppered bottles:

Acetic Acid	Methylene Blue, Aqueous Sat. Sol.
Acid Alcohol	Neusser's Triacid Stain
Alcohol	Toison's Solution
Chenzinsky's Solution	Filter Paper
Dahlia (for staining basophiles)	Forceps for Cover Glasses
Erlich's Triple Stain	Forceps, Nickel Plated
Eosine Solution (in 75% Alcohol)	Lancet
Ether	24 Cover Glasses
Fixing Solution	24 Cut Edge Slides
Formaldehyde	

Price, complete set in a plain wooden case, - - - \$5.00

B1382. **Blood Examination Apparatus**, stomach testing set, consisting of

1 Burette 50 cc. 1-10 with pinch-cock and tip	1 Book blue litmus paper
1-5 cc. Vol. pipette and bulb	1 Sheet Congo Red paper
1-2 cc. " " " "	1 Sheet Dimethyamidoazobenzol paper
2 Glass funnels 2 inches	3 ft. Black rubber tubing, $\frac{3}{8}$ inch diameter
1 Hard rubber funnel 4 inches	1 pc. Glass tubing, $\frac{3}{8}$ inch diameter, 3 ft. long
1 Package filter paper 5 inches	$\frac{1}{2}$ oz. 1% Solution Alizarin
1 Retort stand with burette clamp and 2 rings	8 oz. K O H Solution, 1-10 normal
$\frac{1}{4}$ doz. Test tubes 6 inches	1 pc. Platinum wire 2 inches long, fused in glass rod
1 Graduate, 250 cc., conical	2 oz. 1% Solution Calcium chloride
$\frac{1}{2}$ doz. Beaker glasses 100 cc.	1 oz. Solution Iron trichloride
$\frac{1}{6}$ doz. Tumblers 500 cc.	2 oz. Fehling's Copper Solution
$\frac{1}{2}$ oz. 1% Alc. Solution Phenolphthalein	2 oz. Fehling's Alkali Solution
$\frac{1}{2}$ oz. 1% Alc. Solution Dimethyl-amidoazobenzol	1 oz. Lugols Solution

Price per set, - - - - - \$8.25

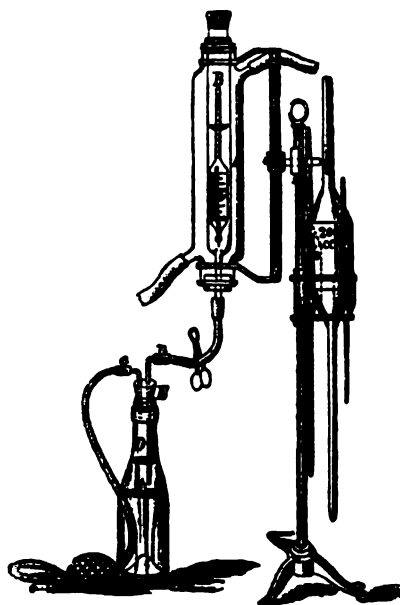
Apparatus for the Examination and Testing of Milk



B1383.



B1385.



B1393.

*B1383.	Creamometer , Chevalier's, with red lines, - -	\$.85
*B1384.	Cream Tube , (see fig. 1394) - 60 cts., on foot,	1.00
*B1385.	Cream Tube , giving direct percentage of cream, - -	.50
B1386.	Cream Tube , giving direct percentage of cream, large, with glass foot, - - - - -	.60
B1387.	Cream Tube , according to Gerber, - - - -	.60
B1388.	Lactodensimeter , N. Y. Board of Health, - -	.50
B1389.	Lactodensimeter , N. Y. Board of Health, with thermometer, - - - - -	2.00
B1390.	Lactodensimeter , Quevennes, with thermometer, -	2.00
*B1391.	Lactoscope , Professor Feser's, in polished wooden case with metal foot, latest form, (See fig. 1395) -	3.40
B1392.	Lactobutyrometer , Caldwell's, graduated tube with rubber stopper, two pipettes and one cylinder, complete,	2.50
—*B1393.	Lactobutyrometer , Soxhlet's, with Professor Soxhlet's guarantee of correctness, two normal hydrometers, support, rubber bulbs, cooler, 12 numbered bottles, wash-bottles, pinchcocks, etc., complete, - - -	35.00

APPARATUS FOR THE EXAMINATION AND TESTING OF MILK



B1394.

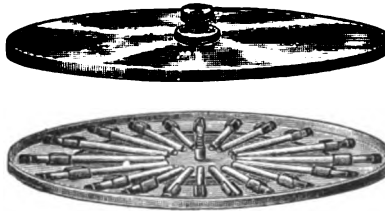


B1395.



B1396.

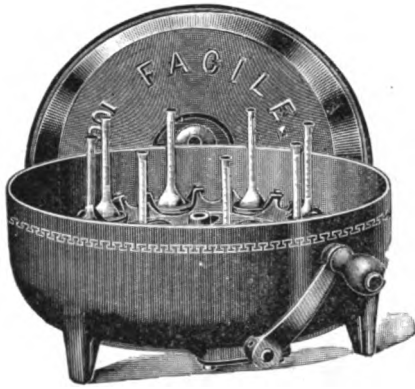
- *B1394. **Milk Testing Apparatus**, Marchand's, portable, specially arranged for milk inspectors. The cream tubes, pipettes, etc., are packed inside a brass jar, with an alcohol cup for raising cold milk to the temperature desired, - - - - - \$10.00
- *B1395. **Milk Testing Apparatus**, complete, for inspectors, etc., consisting of Feser's lactoscope, lactodensimeter, thermometer, cylinder, complete with instructions, in leather case, - - - - - 12.00
- *B1396. **Milk Tester, Pioscope**, Professor Heeren's, for approximate tests, - - - - - .50



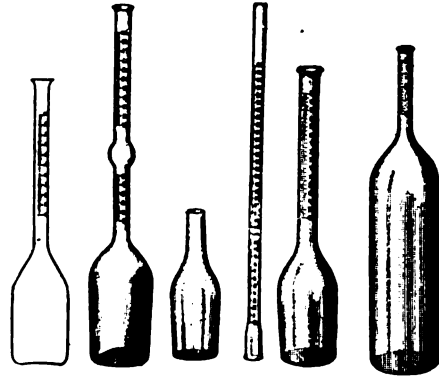
B1397.

- *B1397. **Hood, Stewart's**, with 20 tubes for testing milk, according to Gerber's method; can be attached to any centrifuge; nickel-plated, - - - - - \$7.50
- Burettes** for milk analysis, see page 100.
- Milkwarmers**, see page 62.
- Pipettes** for milk analysis, see page 100.
- Sterilizers** for milk, see page 60 to 61.

APPARATUS FOR THE EXAMINATION AND TESTING OF MILK



B1398.



B1399. B1400. B1401. B1402. B1403.

- *B1398. **Milk Tester, Babcock's.** This well-known apparatus gives the exact butter value of milk within ten minutes. Full directions for using are sent with each machine. With 40 turns of the crank the bottle-head reaches a speed of 1080 revolutions per minute, and 60 turns of the crank gives 1620 revolutions of the bottle-head per minute.

The required speed obtained without too great a speed of the crank.

4-bottle Tester, with 2 cream bottles and pipette,	-	-	-	-	-	-	-	\$ 5.50
4 " only,	-	-	-	-	-	-	-	5.00
4-bottle Tester, with outfit,	-	-	-	-	-	-	-	8.00
6 " " " "	-	-	-	-	-	-	-	9.00
8 " " " "	-	-	-	-	-	-	-	10.00
10 " " " "	-	-	-	-	-	-	-	12.00
12 " " " "	-	-	-	-	-	-	-	14.00
16 " " " "	-	-	-	-	-	-	-	18.00
20 " " " "	-	-	-	-	-	-	-	20.00

With galvanized iron castings, additional,
 - | - | - | - | - | - | - | 1.00 |

All sizes fitted for belt power,
 - | - | - | - | - | - | - | 3.00 |

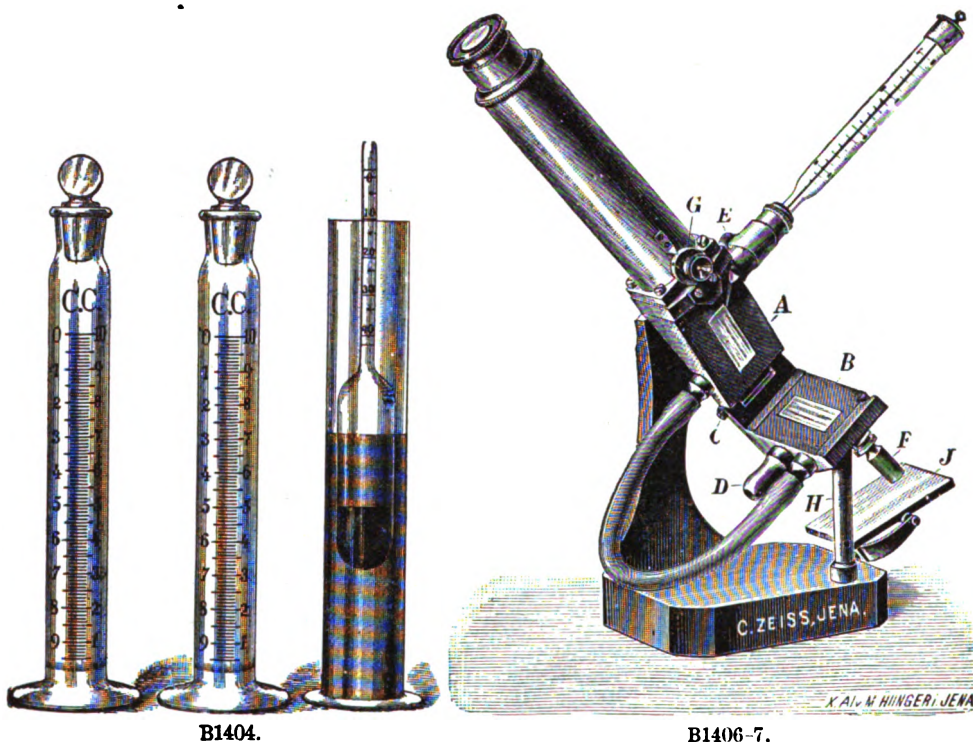
Outfit consists of a full set of regular milk bottles, pipette, acid measure, acid sufficient for making 50 to 100 tests. We recommend the above machines with cog wheel gear as more durable than the Friction machines, but supply the latter at same prices, if preferred. **See also Reg. Cat. No. 2719.**

*B1399.	Test Bottles, Babcock's, for milk, 10%,	-	per doz.,	\$1.50
*B1400.	Test Bottles, Babcock's, for cream, 25%,	-	per doz.,	4 00
*B1401.	Test Bottles, Babcock's, for cream, 35%,	-	per doz.,	5.00
*B1402.	Test Bottles, Babcock's, for cream, Conn. Agricult.			
	Expt. Station pattern, 30%,	-	per doz.,	3.00

The latter are recommended as fitting all makes of machines and being easy to clean.

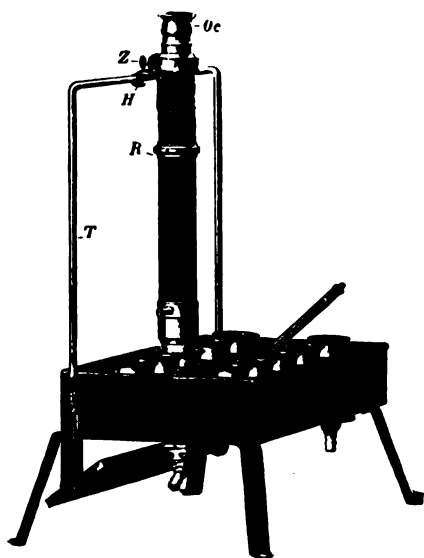
*B1403.	Test Bottles, Babcock's, for skim and buttermilk,	doz.,	4.00
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APPARATUS FOR THE EXAMINATION AND TESTING OF MILK

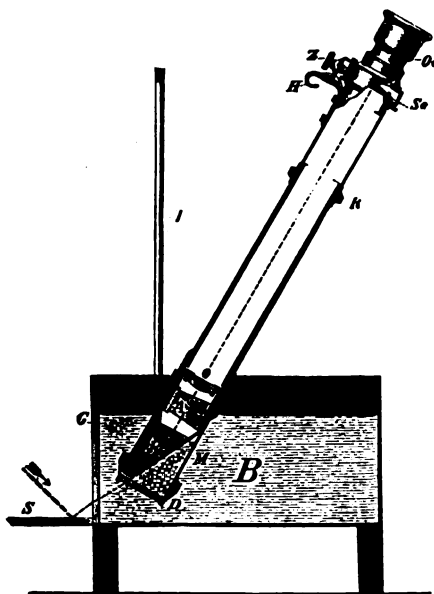


- *B1404. **Milk Apparatus**, Dr. L. E. Holt's, for testing human milk; consisting of 2 graduated stoppered cylinders, 1 lactometer and cylinder for same; complete in box, with instructions for use, - - - - - \$2.00
- B1405. **Milk Scale**, Richmond's, improved, - - - - - 3.00
- *B1406. **Refractometer** after Wollny, made by Carl Zeiss, for the determining of the fat percentage in milk; Eye-piece scale having a value from $n_D = 1.33$ to $n_D = 1.42$; in case with correction thermometer, - - - - - Δ \$74.00
- *B1407. **Refractometer**, made by Carl Zeiss, for the refractory examination of butter; also for fats, sweet oils, etc., scale reading from $n_D = 1.42$ to $n_D = 1.49$, divided in $1/10$ parts; with a bottle of "normal liquid", thermometer $0.50^\circ\text{C } \frac{1}{2}$ and special thermometer for butter and suet, complete in case, - - - - - \$71 50
- OB1408. **Heating Spiral** with water pressure regulator for same, \$25.00

APPARATUS FOR THE EXAMINATION AND TESTING OF MILK



B1410—B1411.



B1410. B1412.

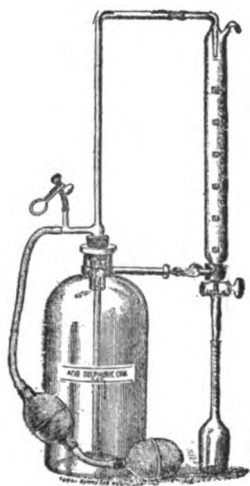
Refractometer, Immersion, for the examination of liquids of a low refractory index, especially milk, also aqueous, alcoholic, ethereal, etc., solutions :

- *B1410. With prism mounted so as not to come into contact with liquids hurtful to it, as acids, etc. - - - - - \$83.50
- *B1411. **Tin Vessel A** for same, holding 10 beakers, for quick examinations of a number of liquids at the same time; with window in the bottom of the vessel and reflecting mirrors, complete with 10 beakers, - - 10.00
- *B1412. **Tin Vessel B**, with window in the front side and mirror, - - - - - 6.00
- *B1413. **Thermometer**, 0-50°C 1/10, in nickel-plated metal tube, 9.00
- **Heating Spiral**, see B1408.

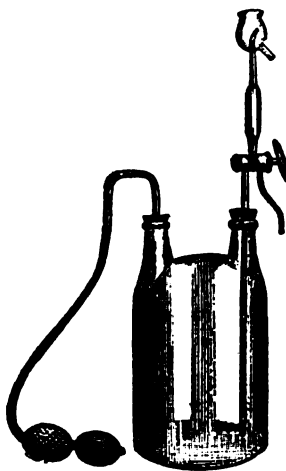
Auxiliary Prisms for the examination of a very small quantity of liquids.

- B1413a. For B1410: Prism unmounted, - - - - - 4.00
- **Old Model I and Prism I** for the same no longer made. (See 1905 Catalog.)

APPARATUS FOR THE EXAMINATION AND TESTING OF MILK



B1415.



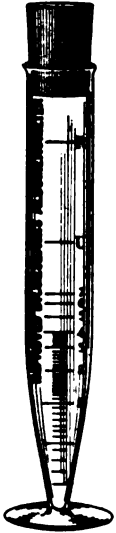
B1419.

B1414.	Milk Acid Measure , on foot, 17.6 cc.,	- - -	\$.20
*B1415.	Milk Burette, Automatic , for delivering six charges of 17.6 ccm. sulphuric acid before refilling, complete with reservoir,	- - - - -	5.00
B1416.	Milk Burette, with Stopcock , style B1666a, for acid.		
	For 3 6 12 25 charges of 17.6 ccm. acid.		
	\$2.00 2.50 3.00 4.50 each.		
B1417.	Milk Pipette , 17.6 cc.,	- - - - -	.25
B1418.	Milk and Cream Pipette , 17.6 and 10 cc.,	- -	.30
*B1419.	Milk Pipette , automatic, 17.6 cc., complete with reservoir and rubber bulb, for acid,	- - - -	6.00
B1420.	Milk Test Bottle Brushes , small, doz.,	- - -	.35
	large, doz.,	- - -	1.00

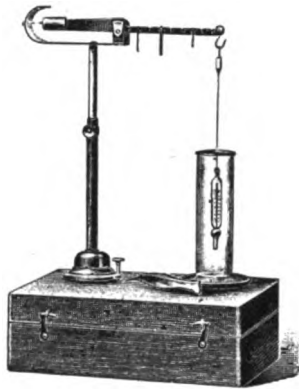
All graduated Milk Apparatus quoted above are made
in our own shop and of assured accuracy.

Apparatus for Urinary Analysis

- *B1421. **Albumenometer**, Esbach's, for the quantitative estimation of Albumen in urine. In box, \$.60
 Test-solution, per pound, with glass-stoppered bottle, - - - - - .40
- *B1422. **Albumenometer**, Esbach's, for the quantitative estimation of Albumen in urine. Improved form on glass foot. Complete in box with rubber stopper and directions, - - - 1.00



B1422.



B1423.

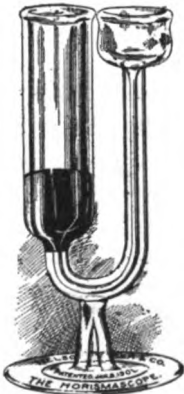


B1424.

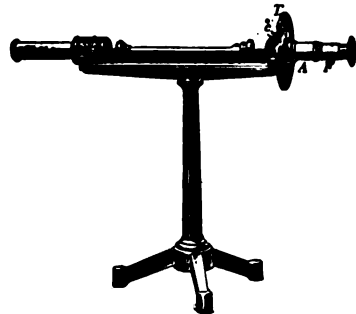


B1421.

- *B1423. **Balance, Specific Gravity** Westphal's, for determining the specific gravity of urine to the fourth decimal, \$16 50
- *B1424. **Fermentation Tubes**, Smith's, small size, 5 in. high, .30
 Large size, 7 in. high, .40



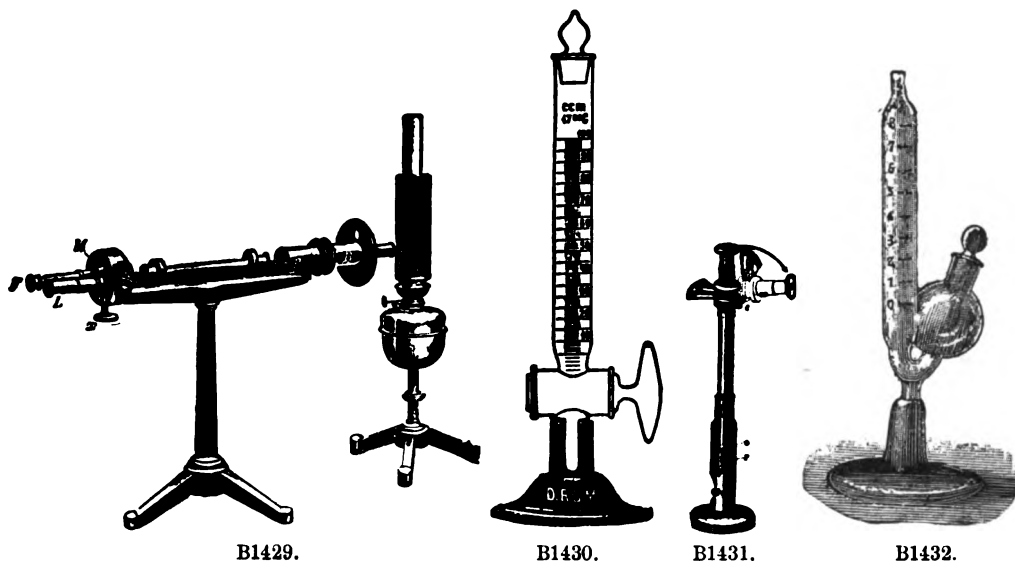
B1425.



B1427.

- *B1425. **Horismascope**, particularly used and recommended for detecting traces of albumen in urine. A very delicate instrument, indicating $\frac{1}{60}$ th per cent. of albumen. Complete with directions, - - - - - \$1.00

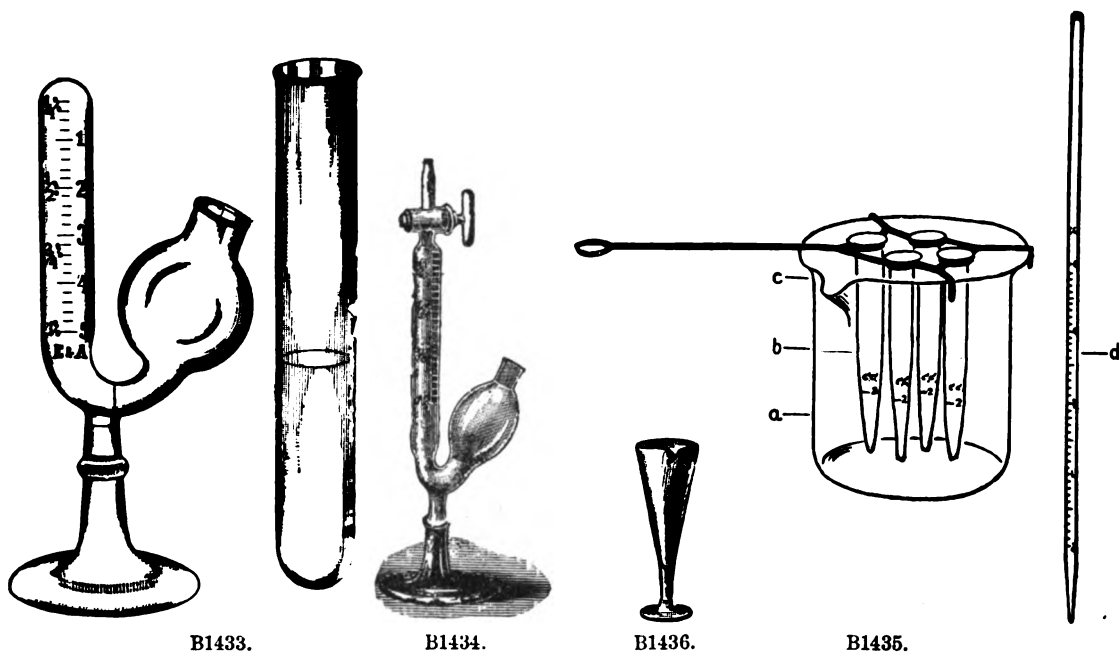
APPARATUS FOR URINARY ANALYSIS



Percentage Tubes, Purdy's, for determination of albumen, see under centrifuges, page 132.

- *B1426. **Polariscope**, Franz Schmidt & Haensch' make, Mitscherlich's half shade, with Laurent's Polarizer, reading 0.1°, with 2 glass tubes 94.7 and 189.4 mm. and Sodium gas lamp, - - - - - \$63.00
- B1427. With Barthel's alcohol sodium lamp, - - - - - 65.00
- Illustrated on page 101.**
- OB1428. **Polariscope**, after Mitscherlich, simple form, with one 200 millimeter tube, - - - - - 35.00
- *B1429. **Polariscope, New**, for Urine Analysis, Franz Schmidt and Haensch' make, for the rapid and exact estimation of sugar and albumen in urine, reading to 0.1%, using common white light; complete with 3 observation tubes and lamp, in mahogany case, specially constructed for physicians, - - - - - 100.00
- B1429a. Ditto, with nickeline scale and protection cap, as illust'd, 120.00
- *B1430. **Purinometer**, Hall's, for controlling the assimilation of nitrogenous food in the body, complete, - - - 10.00
- 200 ccm. test solution, No. 1, - - - - - .50
- 200 ccm. test solution, No. 2, - - - - - .55
- *B1431. **Saccharimeter**, Ultzmann's, improved form, for the quantitative determination of sugar in urine, for any light, with observation tube and telescope, reading from 0-10%, in mahogany box, - - - - - \$36.00
- Stand for above, - - - - - 5.00
- *B1432. **Saccharometer, Fermentation**, after Einhorn, modified by Fiebig, with glass-stopper on bulb, for quantitative determination of sugar in urine, must, etc., \$1.25
- B1432a. Set of two, complete with graduated tube, in box, per set, 2.50

APPARATUS FOR URINARY ANALYSIS



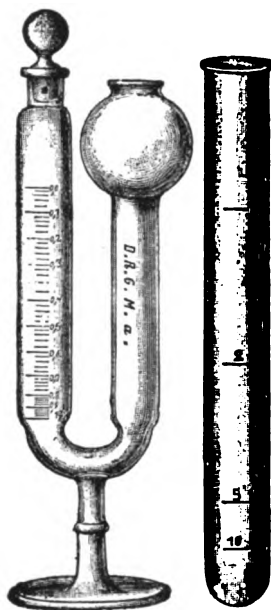
- *B1433. **Saccharometer**, Fermentation, Einhorn's, for the estimation of sugar in urine, single tubes, each, \$0.75
- B1433a. Set of two saccharometers and one graduated test tube, put up in box, - - - - - 1.50
- *B1434. **Saccharometer**, after Einhorn, with glass stop-cock on top for easy filling of tube - - - each, 2.00
- B1434a. Set of two, complete with graduated tube, in box, per set, 4.00
- *B1435. **Saccharometer**, Dr. Beck's, for quick estimation of sugar in urine, complete as per illustration, incl. wooden support for the four tubes, - - - - - 3.50
- *B1436. **Urine-Test (-Sediment) Glasses**, conical with lip,
- | | 30 ccm. | 60 ccm. | 125 ccm. | 200 ccm. | 250 ccm. |
|--|---------|---------|----------|----------|----------|
| | \$0.15 | 0.20 | 0.25 | 0.30 | 0.35 |



B1437.

- *B1437. **Ureometer**, Bartley's, glass parts only, with 1 cm. pipette, - - - - - \$1.00
- Fitted with Dr. Beebe's clamp, - - - - - 1.50

APPARATUS FOR URINARY ANALYSIS

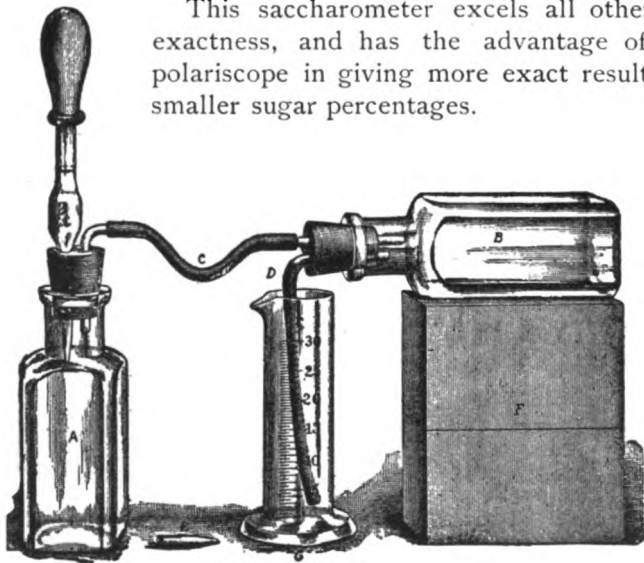


B1438.

- *B1438. **Saccharometer**, Precision, Dr. Lohnstein's, for the exact determination of sugar in urine, consisting of the U shaped, stoppered tube, graduated, the test tube, also graduated, for diluting the urine and a bottle of mercury; with directions in black box, - - -

\$2.25

This saccharometer excels all others in exactness, and has the advantage of the polariscope in giving more exact results for smaller sugar percentages.



B1439.

- *B1439. **Urea Apparatus**, Squibb's, complete with directions for use, - - - - -

\$2.00

EXAMINATION OF GASTRIC CONTENTS.

Necessary apparatus and solutions for each test in brackets.

TESTS FOR ACIDITY.

LITMUS TEST.

[1 Bottle, each, Squibbs Red and Blue Litmus Paper.....12]

The reaction of the filtered gastric juice may be determined with red and blue litmus paper. The test is not very delicate, and it is best to employ the

CONGO RED TEST.

[2 oz. Congo Red Solut.....35]
[6 Test Tubes 6" x 3/8".....15]

A strong solution of Congo red in dilute alcohol is kept in stock. A few drops are added to a test-tube of water, making a deep red solution. A few drops of acid gastric juice turn the red color to blue. (Plate I.) The test detects acid in a solution of 1 to 50,000. Acid salts have no action.

TESTS FOR FREE HYDROCHLORIC ACID.

THE AMIDO-BENZOL TEST. [2 oz. Toepfer's Solut.....35] [6 Test Tubes 6" x 3/8".....15]

A drop of a solution of dimethyl-amido-azo-benzol is added to a few drops of filtered gastric juice. If free HCl is present, a cherry-red color develops. This is the most delicate and the quickest routine test.

Fallacies. Acetic, butyric and lactic acids much exceeding 5%, and moderately concentrated solutions of acid phosphates may strike a red color. Such large amounts of organic acids are not present with HCl after a test meal. Lactic acid, if near this figure, is readily detected by Uffelmann's test. Dissolved albumin, mucus and peptones slightly mask the color and counteract the effect of these fallacies.

THE RESORCIN TEST. [2 oz. Boas' Reagent.....35] [1 R. B. Evap. Dish No. 000.....12]

Five grams of resorcin and 3 grams of cane sugar are dissolved in 100 c.c. of alcohol. Equal drops of this reagent and gastric juice are slowly evaporated to dryness, without burning, in a porcelain dish (a butter-dish does admirably). If free HCl is present, a rose-red color appears, which fades on cooling. (Plate I)

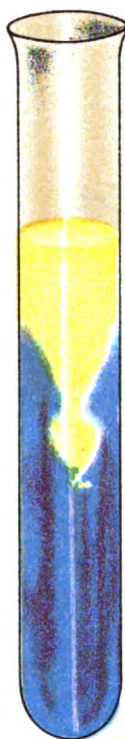
This test may be applied where the more rapid and delicate amido-benzol test is questioned. It responds to HCl only. It is as delicate, more easily obtained, less expensive and more stable than

THE PHLOROGLUCIN-VANILLIN TEST. [1 1/2 oz. Guenzberg's Reagent.....40] [1 R. B. Evap. Dish No. 000.....12]

The reagent consists of 2 grams of phloroglucin and 1 gram of vanillin dissolved in 100 c.c. of 90% alcohol. Equal drops of this and gastric juice are slowly evaporated on porcelain. A rose tint appears at the edge if free HCl is present. (Plate I.) When HCl is absent the color varies from a yellow to brown. The test responds to free HCl only. The solution is unstable and should be preserved in a dark glass bottle.



CONGO RED
TEST.



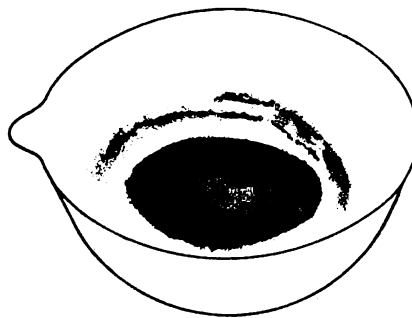
UFFELMANN'S
TEST.



GMELIN'S
TEST.



RESORCIN
TEST.



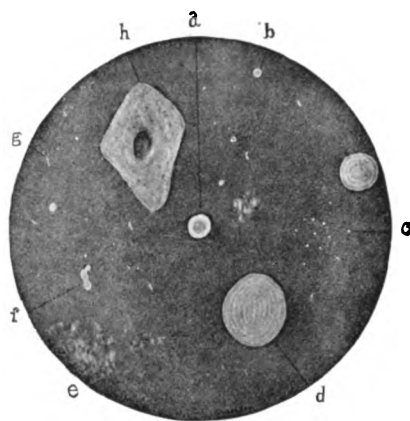
PHLOROGLUCIN-VANILLIN
TEST.

BY COURTESY OF THE NEW YORK PHARMACAL ASSOCIATION, MAKERS OF *LACTOPEPTINE*.

THE GASTRIC CONTENTS IN HEALTH.

A microscopical view of the normal stomach contents after Ewald's test breakfast. Dark ground illumination. X 460.

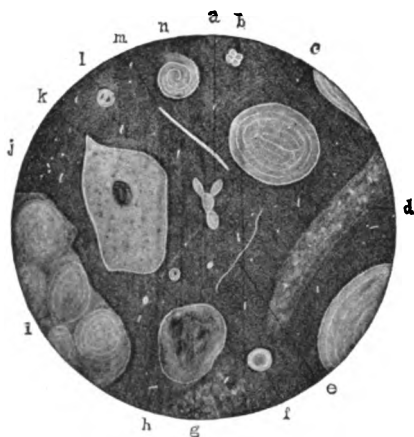
- (a)—Fat droplet.
- (b)—Nucleus of a white blood corpuscle.
- (c)—Cocci.
- (d)—Grain of wheat starch.
- (e)—Amorphous matter from disintegrated starch grain.
- (f)—Yeast.
- (g)—Bacillus.
- (h)—Squamous epithelium.



THE GASTRIC CONTENTS IN CHRONIC GASTRITIS.

A microscopical view of the stomach contents in chronic gastritis after Ewald's test breakfast. Dark ground illumination. X 460.

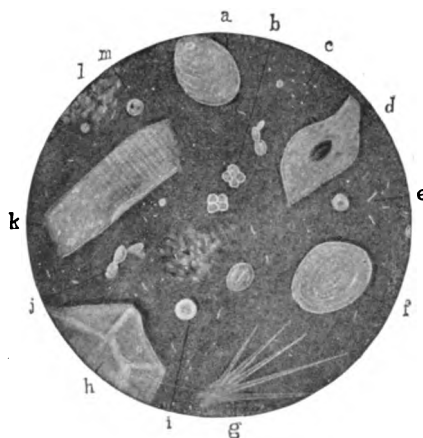
- (a)—Yeast.
- (b)—Sarcinae.
- (c)—Grain of wheat starch.
- (d)—Mucous string.
- (e)—Leptothrix.
- (f)—Fat droplet.
- (g)—Partly digested starch grain
- (h)—Bacillus.
- (i)—Mass of starch grains.
- (j)—Cocci.
- (k)—Squamous epithelium.
- (l)—Leucocyte.
- (m)—Roas-Oppler bacillus.
- (n)—Spiral mucous thread.



THE GASTRIC CONTENTS IN MOTOR INSUFFICIENCY.

A microscopical view of the stomach contents in motor insufficiency after a mixed diet. Dark ground illumination. X 460.

- (a)—Grain of potato starch.
- (b)—Sarcinae.
- (c)—Cocci.
- (d)—Squamous epithelium
- (e)—Bacillus.
- (f)—Grain of wheat starch.
- (g)—Fatty acid crystals.
- (h)—Vegetable cell.
- (i)—Fat droplet.
- (j)—Yeast.
- (k)—Partly digested muscle fibre.
- (l)—Amorphous material.
- (m)—Leucocyte.

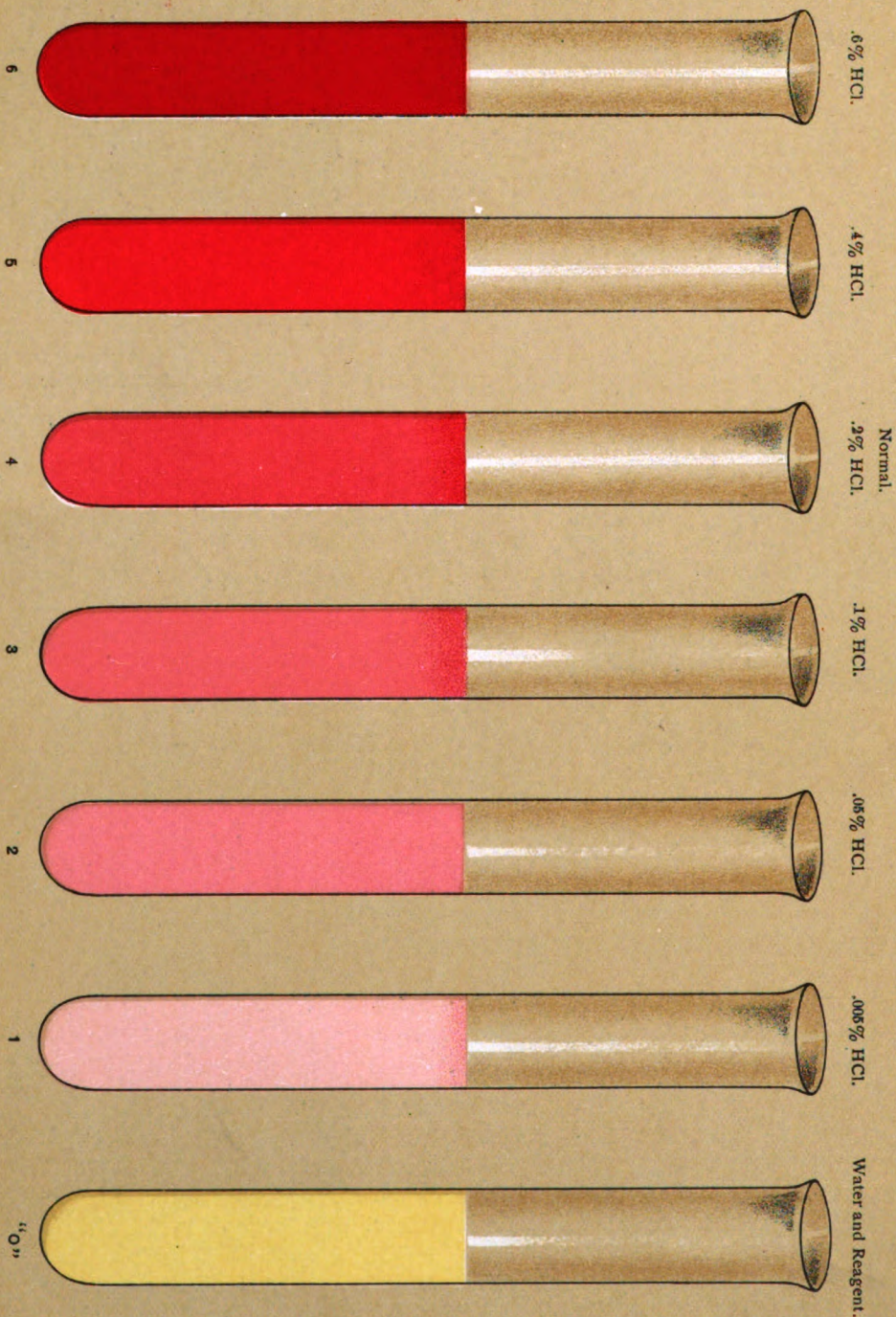


[Spencer Microscope 50D, with Obj. 3.5 mm.
instead of 4 mm..... 35.00]

EXAMINATION OF GASTRIC CONTENTS.

PLATE II.

COMPLIMENTS OF EIMER AND AMEND.



BELL'S COLOR-SCALE FOR ESTIMATING THE AMOUNT OF HYDROCHLORIC ACID IN THE STOMACH CONTENTS.
BY COURTESY OF THE NEW YORK PHARMACAL ASSOCIATION, MAKERS OF LACTOPEPTINE.

TEST FOR LACTIC ACID.

UFFELMANN'S TEST.

[6 Test Tubes 6" x 5/8"15]

Place in a test tube 2 drops of carbolic acid and 6 drops of ferric chloride solution (U. S. P.) and fill the tube with water until the solution is a deep amethyst blue. A few drops of gastric juice containing lactic acid to the amount of .1 % turns the solution lemon yellow. (See Plate I.) Remember the rule: Where the yellow color is doubtful, the amount of lactic acid is not pathological. If there is simply decoloration and no yellow tint produced, shake 5 to 10 c.c. of the juice with ten times its volume of ether. Separate the ether and evaporate it over warm water. Add a few drops of water to the residue and test as before.

There are many other substances which react to this test, but they do not invalidate it. Acid phosphates, glucose and alcohol give a similar reaction, but are not in the test meal. Much mineral acid will decolorize the solution, but does not accompany lactic acid fermentation and is not ingested. It can be guarded against by shaking with ether. Butyric and acetic acids yield the same tests, but are uncommon and detected by their odors. Beware that bile-stained juice does not simulate the yellow color.

This test is sufficient for clinical purposes, as only large amounts of lactic acid are pathological. Where juice has a low acidity, or is neutral to litmus, the test for lactic acid should be at once applied, as on standing lactic acid fermentation progresses rapidly. Gastric juices containing more than traces of lactic acid have a distinct *sour* milk odor, and are acid to litmus. When lactic acid is suspected, Boas' test meal may be administered. If atony is present, wash the stomach well the night before the test breakfast.

[2 oz. Carbolic Acid15
2 " Ferric Chloride, U. S. P.15
1 lb. Sulphuric Ether, in bottle83]

QUANTITATIVE ESTIMATION OF ACIDITY.

Töpfer's Method.

This method determines quantitatively: (1) Total acidity; (2) Free HCl; (3) Combined HCl; (4) Total HCl; (5) Acid salts quite accurately for clinical purposes. In routine examinations it is rarely necessary to determine more than (1) Total acidity and (2) Free HCl. The other determinations may be required when either of these are abnormal.

SOLUTIONS REQUIRED.

[1 Burette, 50cc. in 1/10's with stopcock 1.50
6 Griff. Lip'd Beakers No. 0045]

- (1) 1% alcoholic solution of Phenolphthalein (colorless). [2 oz.35]
- (2) 1% aqueous solution of Sodium Alizarin Sulphonate (opaque brownish yellow). [2 oz.35]
- (3) .5% alcoholic solution of Dimethyl-amido-azo-benzol (yellowish red). [2 oz.35]
- (4) Decinormal solution of NaOH to titrate gastric juice. [1/2 liter75]

PRINCIPLE.

Töpfer's method depends upon the different sensitiveness of three color end-reagents to the various constituents of the gastric juice.

METHOD.

Three beakers are prepared as in Plate III. Each is titrated with $\frac{N}{10}$ NaOH from a burette or a graduated pipette. The titrations with phenolphthalein and alizarin as indicators are to be continued, with stirring, after addition of every drop of alkali, until the drop ceases to strike a delicate cloud of deeper color. (See end-reactions, Plate III.) With amido-benzol the titration is continued from the red through the orange to a bright lemon yellow. Some practice is required to accurately determine the exact end-reactions. Fortunately, an error of 0.1 c.c. is of no clinical importance.

BELL'S TEST.

2 oz. Toepfer's Solut.....	.35
3 Glass Funnels 2".....	.25
1 Pkg. Filters, folded, 1½ cm.....	.25

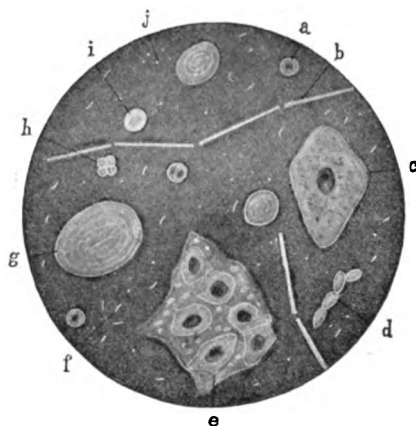
To 4 c.c. of filtered chyme add the stock solution of dimethyl-amido-azo-benzol, drop by drop, until the resulting pink color no longer deepens. Quickly view the color by reflected light and compare with Bell's color-scale. (Plate II.) The corresponding shade on the scale indicates the approximate percentage of HCl in the chyme.

1 Square Base Support, 3 rings.....	.52
1 doz. Test Tubes 6" x 5/8".....	.28

THE GASTRIC CONTENTS IN CARCINOMA.

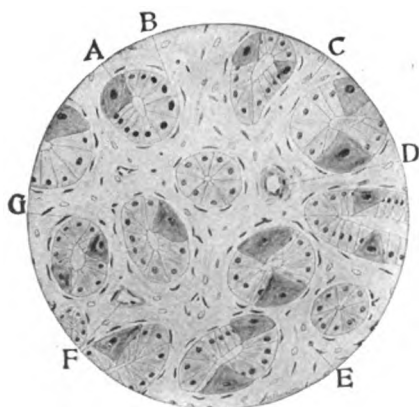
A microscopical view of the stomach contents in carcinoma after Ewald's test breakfast. Dark ground illumination. X 460.

- (a)—Leucocyte.
- (b)—Boas-Oppler bacillus.
- (c)—Squamous epithelium.
- (d)—Yeast.
- (e)—Fragment of mucous membrane showing carcinomatous cells.
- (f)—Bacillus.
- (g)—Grain of wheat starch.
- (h)—Sarcinae.
- (i)—Fat droplet.
- (j)—Coccus.



NORMAL GASTRIC MUCOSA.

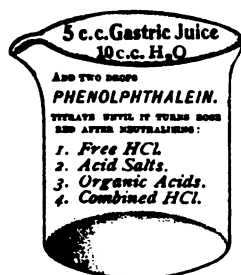
A microscopical view of a section of mucous membrane removed by a stomach-tube from a healthy stomach. Fixed in Hermann's solution. Stained with hæmatoxylin and eosin. X 360.



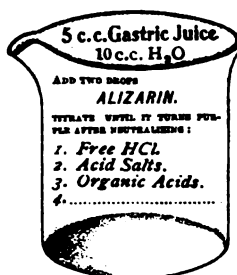
- (A)—Parietal or oxyntic cell, large and deeply stained.
- (B)—Principal or peptic cells.
- (C)—Connective tissue cell with vesicular nucleus.
- (D)—Capillary.
- (E)—Leucocyte.
- (F)—Lymph space.
- (G)—Connective tissue cell with spindle-shaped nucleus.

[Spencer Microscope (see P. 104 c)..... 35.00]

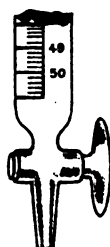
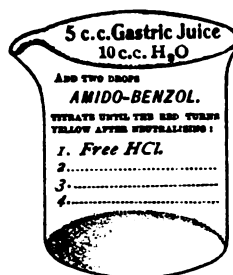
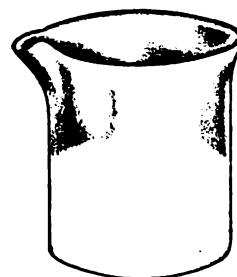
A.

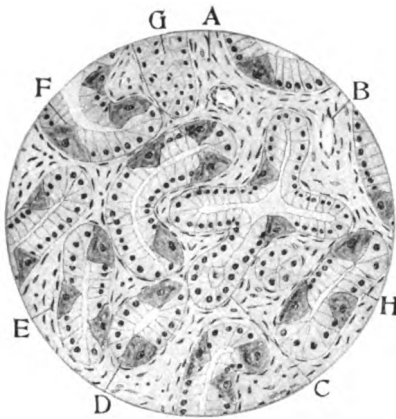


B.



C.

PHENOLPHTHALEIN
END REACTION.ALIZARIN
END REACTION.AMIDO-BENZOL
END REACTION.



MUCOSA IN HYPERTROPHIC GASTRITIS.

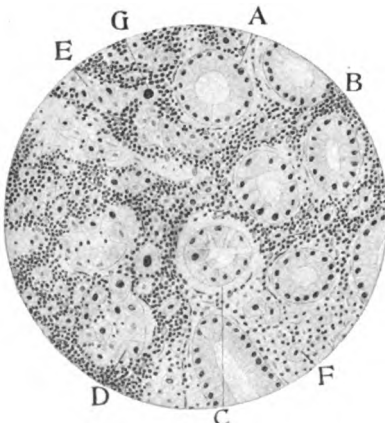
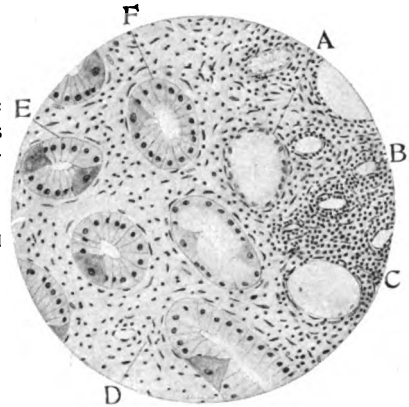
A microscopical view of a section of mucous membrane removed by the stomach-tube in a case of persistent hyperacidity. Fixed in Hermann's solution. Stained with hæmatoxylin and eosin. X 360.

- (A)—Leucocyte.
- (B)—Lymph space.
- (C)—Hypertrophied gland.
- (D)—Nearly normal gland.
- (E)—Connective tissue cell. Connective tissue in general diminished.
- (F)—Gland with marked increase of oxyntic cells.
- (G)—Gland lumen, apparently filled by cellular hyperplasia.
- (H)—Gland showing typical moderate hypertrophy, with increase of oxyntic cells.

MUCOSA IN ATROPHIC GASTRITIS.

A microscopical view of a section of mucous membrane removed by the stomach-tube in a case of mucous gastritis of long standing. Fixed in Hermann's fluid. Stained by hæmatoxylin and eosin. X 360.

- (A)—Gastric gland showing loss of staining power by advanced mucoid degeneration and disappearance of oxyntic cells.
- (B)—Area showing total loss of gastric glands.
- (C)—Round-celled infiltration.
- (D)—Increased interstitial tissue.
- (E)—Apparently normal gland.
- (F)—Gland showing early mucoid degeneration.

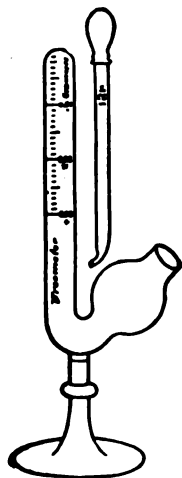


PRIMARY GASTRIC CARCINOMA.

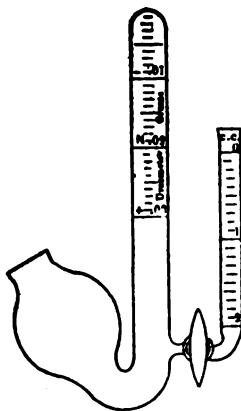
A microscopical view of a section of mucous membrane removed at autopsy in case of cancer of the pylorus. Fixed in formalin. Stained by hæmatoxylin. X 360:

- (A)—Gland showing mucoid degeneration and absence of oxyntic cells.
- (B)—Round-celled infiltration
- (C)—Early gland destruction.
- (D)—Cells breaking through the basement membrane.
- (E)—Carcinomatous cells infiltrating the mucosa.
- (F)—Single migrating cancer cell.
- (G)—Carcinomatous cell showing marked increase of chromatin.

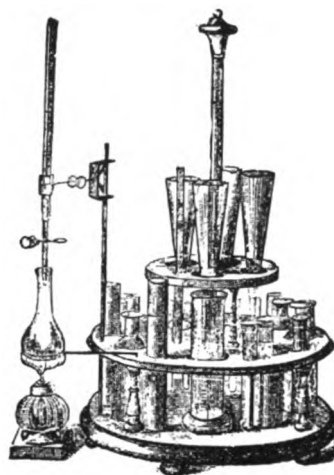
APPARATUS FOR URINARY ANALYSIS



B1440.



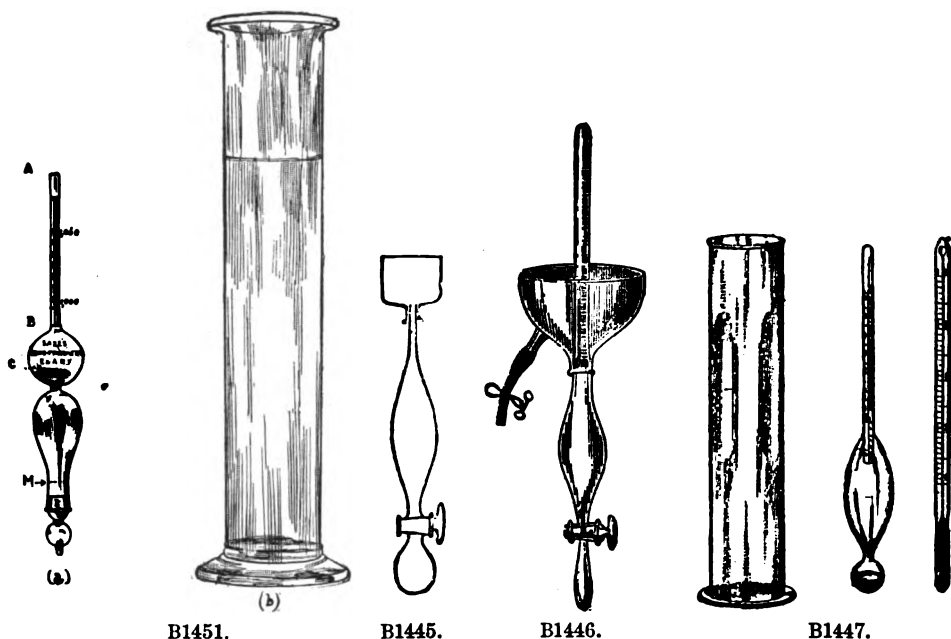
B1441.



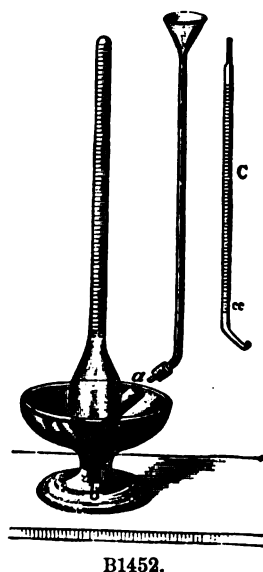
B1442.

- *B1440. **Ureometer**, Doremus', for the rapid estimation of urea,
 complete with pipette, in box, - - - - - \$.85
 Mounted on glass foot, - - - - - 1.00
 Support with clamp for above, - - - - - .90
 Sodium hydrate solution for use with above, - - lb. .60
 Bromine for above, per oz., bottle incl., - - - .25
- *B1441. **Ureometer**, Doremus', improved by Hinds, gives more exact results than the original form, as the 1 CC. of urine required for the test is delivered with greater accuracy and no Nitrogen escapes from the bulb, - 2.50
 B1441a. On glass foot, - 3.00
- *B1442. **Urinary Test Apparatus**, Robert's, consisting of:
- | | |
|--------------------------------|----------------------------------|
| 1 Set of two Urinometers, with | 1 Burette with Pinchcock and |
| Test Glasses. | Burette Holder. |
| 4 Urine Glasses. | 3 Pipettes. |
| 6 Test Tubes. | 3 Stirring Rods. |
| 1 Alcohol Lamp. | 1 Graduate. |
| 5 Bottles filled with | 1 Flask with Ring to support it. |
| Reagents. | 1 Box Litmus Paper. |
- The whole arranged on a round stand of two tiers, of polished wood, especially designed to suit the wants of a physician in his office, - - - - - \$15.00
- B1443. **Urinary Test Tube** on foot, Murray's, for approximate tests, - - - - - 1.25
- B1444. **Ureometer** for estimating urea, Marshall's, - - 3.00

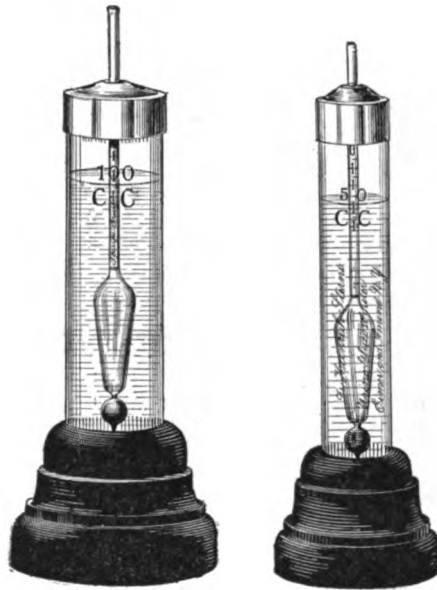
APPARATUS FOR URINARY ANALYSIS



- *B1445. **Ureometer**, Huefner's, for estimating urea, - - - \$3.00
- *B1446. **Ureometer**, Huefner's, improved form, on base, with graduated tube, etc., - - - 5.50
- *B1447. **Urinometer**, for determining specific gravity of urine, according to Dr. Squibb, with thermometer, cylinder and table for corrections, price, 1.50
Without thermometer, - - - .75
- B1448. **Urinometer**, acc. to Neubauer & Vogel, set of two, 1000-1020 and 1020-1040, with cylinder, in box, 1.00
- B1449. **Urinometer**, single instrument of 1000-1060, with cylinder, in box, .50
- B1450. **Urinometer**, with fine thermometer in body, with cylinder, in box, - 1.50
- *B1451. **Urino-Pycnometer**, Dr. Saxe's, for rapid determination of the specific gravity of minimal quantities of urine, - - - 2.00
With cylinder and directions in box, complete, - - - 2.50
- *B1452. **Urea Azotometer**, Marshall's, complete, - - - 3.00



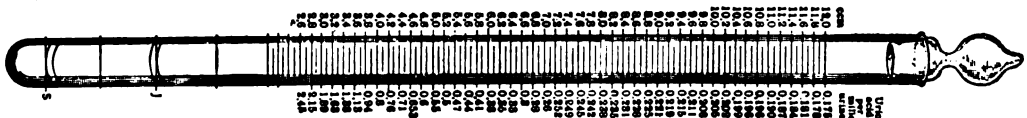
APPARATUS FOR URINARY ANALYSIS



B1453.

- *B1453. **Uro-Glycometer**, Dr. Heinrich Stern's, for the accurate determination of dextrose in urine, acc. to Robert's fermentation process. The apparatus consists of two hydrometers in $\frac{1}{5}$ th°, reading from 0.990–1.030 resp. 1.030–1.070, and one 100 ccm. and one 50 ccm. fermentation tube, cone-shaped at the bottom, fitted to detachable feet. The tubes are carefully gauged and marked, and have perforated, flat topped aluminum caps. The hydrometers can be used also to ascertain the specific gravity of urine.

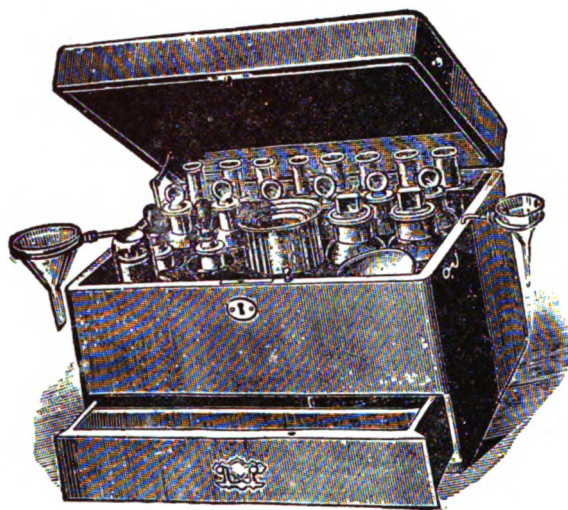
Price of above apparatus, complete, with directions in case,	- - - - -	\$ 4.50
Each hydrometer alone,	- - - - -	1.25
Small cylinder with base, alone,	- - - - -	.80
Large cylinder with base, alone,	- - - - -	1.20
Without bases,	- - - - -	.60 resp. .90



B1454.

- *B1454. **Uricometer**, Ruhemann's, for the rapid estimation of uric acid, - - - - - \$2.50

APPARATUS FOR URINARY ANALYSIS



B1455.

***B1455. Urinary Apparatus Set**, in polished mahogany case, with drawer; size of case, $28 \times 19 \times 17$ cm., containing :

6 Reagent Bottles, Glass Stoppered.	1 Porcelain Evaporating Dish.
2 Reagent Bottles, with Pipette Stoppers.	6 Small Glass Evaporating Dishes.
2 Salt Mouth Reagent Bottles, Glass Stoppered.	2 Glass Funnels.
4 Beaker Glasses, Nested.	1 Glass Stirring Rod.
12 Test Tubes, Assorted Sizes.	2 Wire Holders for Funnels, etc.
1 Test Tube Rack.	1 Pack White Filter Paper, 100 sheets.
1 Test Tube Holder.	1 Screw capped Vial, containing Litmus Paper, Neutral.
1 Test Tube Brush.	1 Pair Pincers for holding Litmus Paper.
1 Urinometer with Glass, in Case.	1 Sheet Gummed Labels.
1 30-Minim Graduated Pipette.	
1 Glass Spirit Lamp.	

Price, complete, - - - - - \$10.00

- B1456. **Urinary Analysis Apparatus**, according to Professor Draper; a handsome wooden stand with drying points, washing bottle, urinometer, glass cylinder, 4 watch-glasses 6 test tubes, 9 labeled glass-stoppered bottles, and brass alcohol lamp, especially arranged for students, - - - - - 4.50
- B1457. Bottles filled with reagents, - - - - - 5.00
- B1458. Same, double size, - - - - - 10.00

APPARATUS FOR URINARY ANALYSIS



B1459.

—*B1459. **Urine Test Set**, Pilling's, in oak case, containing :

8 Reagents.	1 Alcohol Lamp.
2 Funnels.	3 Evaporating Dishes.
12 Test Tubes.	2 Beaker Glasses.
1 Stirring Rod.	1 Urinometer.
1 Graduated Pipette.	1 Test Tube Holder.
Filter Paper.	Red and Blue Litmus Paper.

Price, complete, - - - - - \$5.00

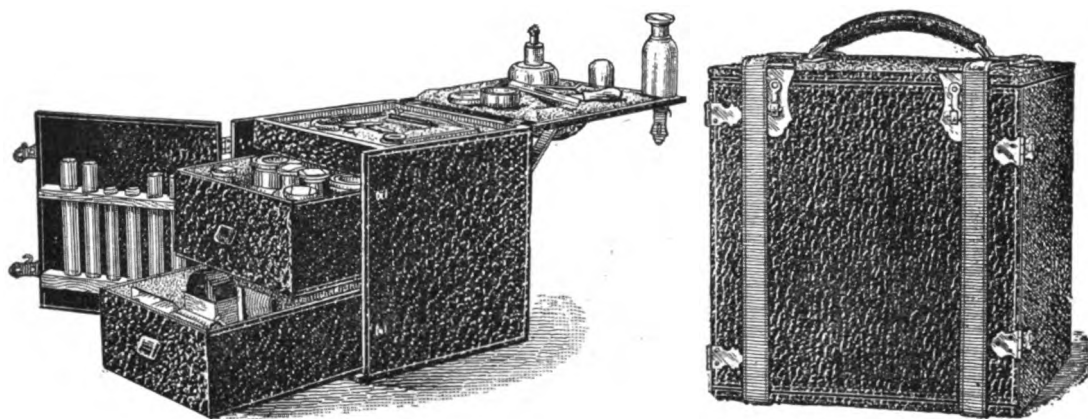
○B1460. **Urinary Analysis Reagents**, acc. to Dr. Harvey Beck.

Acid Acetic C. P.	Solut. Sodium Hydrate
Acid Hydrochloric C. P.	Filter Paper, White
Acid Nitric C. P.	Glass Funnel
Acid Nitric Fuming C. P.	Litmus Paper, Blue
Acid Sulphuric C. P.	Litmus Paper, Red
Alcohol	Test Tubes
Ammonium Hydrate	Test Tube Holder
Ether	Urinometer
Solut. Cupric Sulphate	
Solut. Fehling, Alkaline	STOMACH ANALYSIS.
Solut. Fehling, Copper	Boa's Reagent
Solut. Phosphotungstic Acid	Solut. Ferric Chloride Neutral
Solut. Potass. Ferrocyanide	Solut. Phenolphthalein
Solut. Sodium Chloride Sat.	Solut. Toepfer's

Price, per set, of Reagents for Urinary Analysis, including
those for Stomach Analysis, - - - - - \$5.00

B1461. Price, per set, of Reagents for Urinary Analysis, with
Engraved Labels on bottles, - - - - - 6.50

APPARATUS FOR URINARY ANALYSIS



B1462.

○*1462. **Clinical Apparatus**, in compact portable case, designed by Dr. C. N. B. Camac.

Used for Bacteriological, Chemical and Physical Examinations at bedside. The filled case contains fourteen pieces of various important clinical apparatus, including Thoma-Zeiss Haemocytometer, and twelve bottles for stains and reagents, as per list below.

The lid of the case is so constructed that when opened to its full extent it may be used as a table upon which instruments, specimens, etc., may be placed while making the examination.

Complete in handsome leather case,	-	-	-	\$65.00
Price of Case (without Apparatus),	-	-	-	15.00

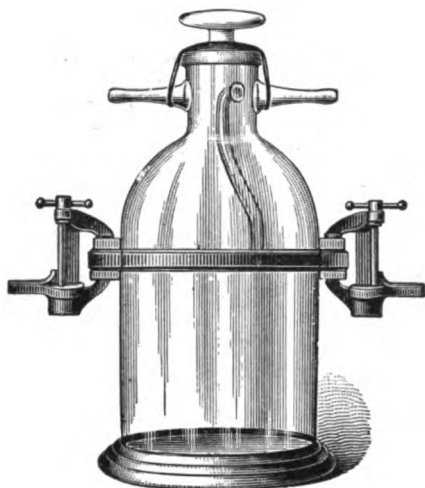
LIST OF APPARATUS

<p>1 Thoma-Zeiss Haemocytometer with mixer for red blood corpuscles \$10.40</p> <p>1 Fleischl's Haemoglobinometer with 3 capillary tubes - - - 24.50</p> <p>1 Set of 2 forceps and 1 spear - - - 2.75</p> <p>1 Candle - - - - - .10</p> <p>1 Brass base for same - - - - .60</p> <p>1 Platinum needle in glass rod - - .35</p> <p>2 5-in. Culture tubes } New York Board .10</p> <p>2 Swab tubes } of Health size .10</p>	<p>1 Alcohol lamp, glass - - - - \$0.35</p> <p>2 5-in. Test tubes - - - - .10</p> <p>1 Stender dish 4 cm. diam. for cover slips .20</p> <p>12 Slides - - - - - .10</p> <p>24 Cover slips - - - - - .15</p> <p>10 Bohemian tincture bottles—1 oz. cap'y. (for reagents and stains) - - .90</p> <p>2 Wide-mouthed specimen bottles - - .30</p> <p>1 Pocket Ophthalmoscope - - - 7.50</p> <p>1 Stomach tube - - - - - 1.75</p>
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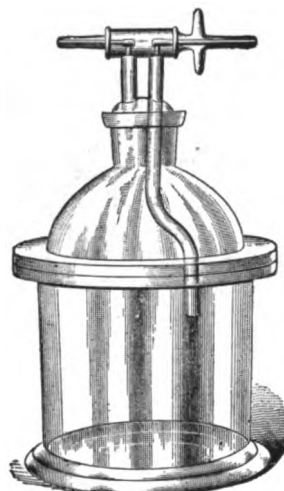
The Lewis Stethoscope with soft rubber tubing can be accommodated in the case, but is not included regularly.

From the above list the purchaser may designate such apparatus as he desires the case to contain, the total cost will be the price of the case added to the prices of the apparatus selected.

Apparatus and Utensils for Generating Cultures

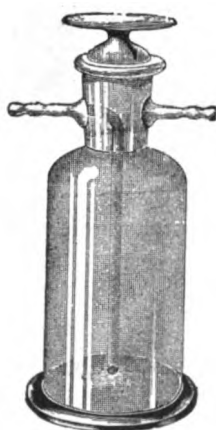


B1471.

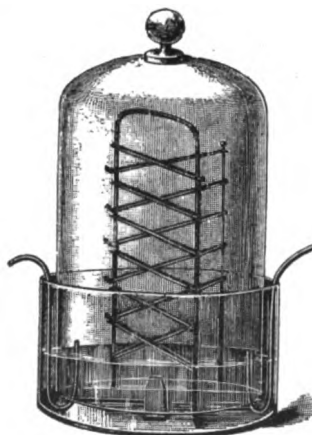


B1472.

- *B1471. **Culture Apparatus**, Novy's, for anaerobe plate cultures, with stopcock; for gas, pyrogallate or vacuum method, - - - - - \$5.25
 With three clamps and rubber band, - - - - - 6.50
- *B1472. **Culture Apparatus**, Novy's, for anaerobe dish cultures, - - - - - 4.25
 With rubber band and three clamps, - - - - - 5.50



B1473.



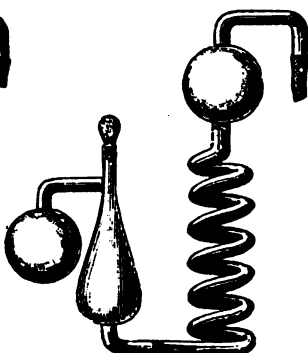
B1474.

- *B1473. **Culture Apparatus**, Novy's, for tube cultures.
 Size, 8 × 16 cm., for 12-13 cm. tubes, - - - - - \$2.50
 " 10 × 20 " " 15-16 " " - - - - - 3.50
- *B1474. **Culture Apparatus**, Botkin's, for anaerobe cultures, 6.50

APPARATUS AND UTENSILS FOR GENERATING CULTURES



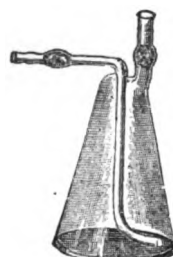
B1475a.



B1475b.



B1476a.

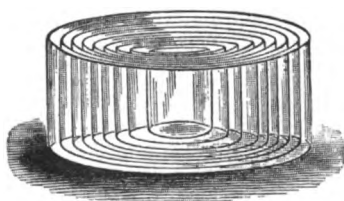


B1476b.

- *B1475. **Culture Apparatus**, Emmerich's, for air bacteria;
 shape a or b, - - - - - \$1.25

The application is the following: The tubes are sterilized in the hot air oven, filled with the cultivating material and sterilized again with steam. The wadding stopper is then taken off and the air passed through by means of an aspirator. After this process, the tubes are shaken and the liquid is put into different bottles for examination.

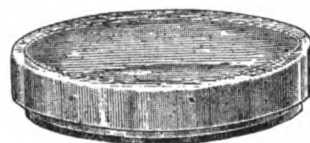
- *B1476a. **Culture Apparatus**, after Maassen & Petri, for use
 with hydrogen; test tube form - - - each, .60
 *B1476b. conical flask shape - - - " 1.50



B1477.



B1478.



B1481.

- *B1477. **Culture Dish**, single, of best Bohemian glass, with
 flat bottom and straight sides.

Diameter,	6	8	10	12	15	20	25	cm.
Price,	\$0.15	.20	.20	.25	.35	.50	1.00	each.

- *B1478. **Culture Dish**, so-called **Wet** or **Moist Chambers**,
 in sets of two, of heavy glass, with or without knob.

Diameter,	15	20	25	cm.
Price,	\$0.75	.90	1.25	per set.

- *B1479. **Culture Dish**, in sets of two, **Petri Dishes**, low
 form.

Diameter,	5	8	10	12	15	cm.
Price,	.20	.25	.25	.35	.55	per set.

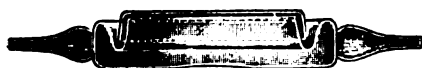
- B1479a. **Porous Clay Covers**, for B1479, 10 cm. size net - - .10

APPARATUS AND UTENSILS FOR GENERATING CULTURES



B1480.

- *B1480. **Culture Dish**, new improved Petri dish, consisting of a lower conical dish of colorless glass, and an upper one of amber glass, with raised rim, opaque to light; thus, by shutting out the light, these dishes increase the growth of cultures. They can be easily and safely transported by means of the conical bottom-dish fitting into the depressed upper one, - per pair, \$.50
- *B1481. **Culture Dish**, Pasteur's thin and shallow, 10 cm. diameter, 10 mm. deep, - - - - per set, .25

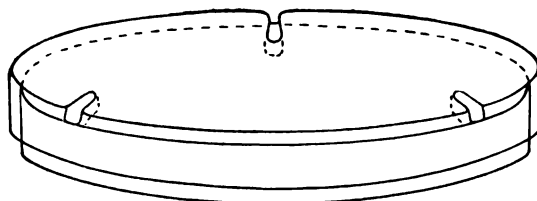


B1482.



B1483.

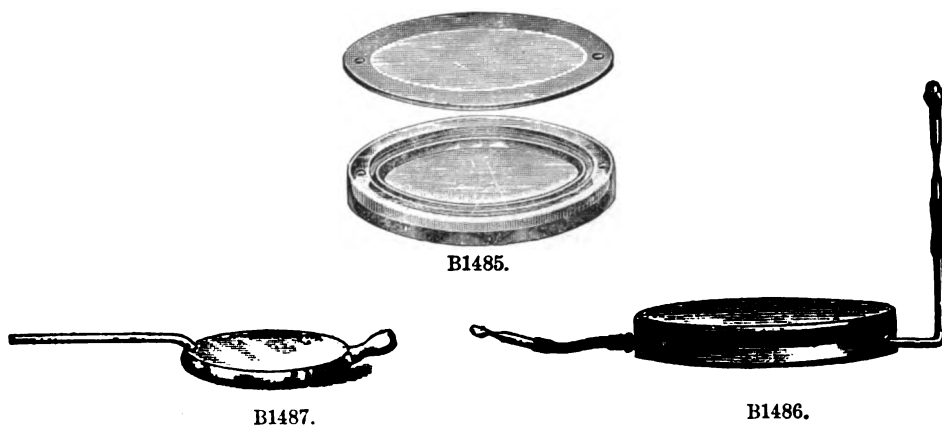
- *B1482. **Culture Dish**, after Beck, latest form, for bacilli and anaerobe cultures, arranged to prevent the drying up of the cultures, - - - - - \$1.00
- *B1483. **Culture Dish**, after Wakker, for fungi cultures, 80 mm. diameter, with funnel, cover ground on, - - - 1.00



B1484.

- *1484. **Culture Dish**, ventilated, for water analysis, designed by G. W. Whipple, of the Brooklyn Water Department. A Petri dish, the cover of which has depressions so as to have it rest loosely on the edge of the bottom dish, thus allowing air to circulate; diameter 95 mm., height of lower dish 8 mm., - - - - - \$.35

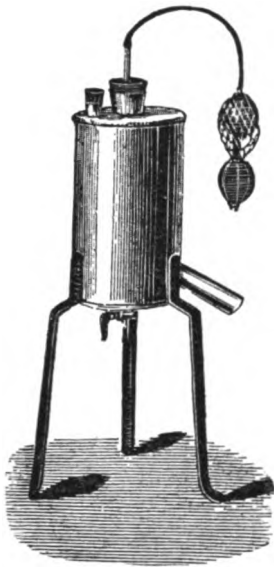
APPARATUS AND UTENSILS FOR GENERATING CULTURES



- *B1485. **Culture Dish**, Gabritschewski's, for tetanus cultures, consisting of two shallow dishes, the upper one having two perforations and the lower one having a gutter for the alkalial pyrogallol solution; lower dish well polished, - - - - - per pair, \$1.00
- *B1486. **Culture Dish**, Kitasato's, for anaerobe cultures. Several of them can be joined together and used at one time with gas generator.
- | | |
|-------------------------------------|------|
| Price, with 2 connectors, - - - - - | 0.65 |
| Wide connector, - - - - - each, | .15 |
| Narrow connector - - - - - " | .10 |
- *B1487. **Culture Dish**, Ahrens', for anaerobe cultures, consisting of dish with rubber band, and in- and outlet tubes ground in gas-tight, - - - - - 2.00
- *B1488. **Culture Filter Apparatus**, Karlinsky's, for filtering clear Agar-Agar, complete with rubber blower, - 7.00
- *B1489. **Culture Filter** for steam, Unna's, of copper, with enameled funnel inside, for filtering pasty substances like Gelatine and Agar-Agar.
- | | |
|--|-------|
| Capacity of funnel, 500 ccm., - - - - - | 20.00 |
| Capacity of funnel, 1000 ccm., - - - - - | 25.00 |
- *B1490. **Culture Filtering Apparatus**, Maassen's, can be used also for the sterile drawing of the filtered fluids; the complete apparatus consisting of glass vessel, filter cylinder, asbestos ring and rubber gasket, - - - Δ 7.00
- | | |
|---|------|
| Iron support with clamp for same, - - - - - | 3.00 |
|---|------|

B1488—B1490 illustrated on page 115.

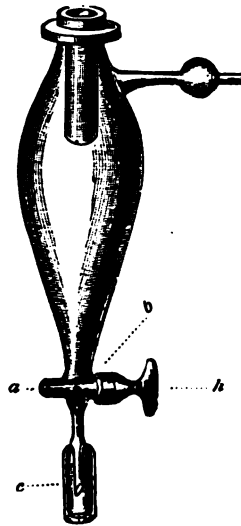
APPARATUS AND UTENSILS FOR GENERATING CULTURES



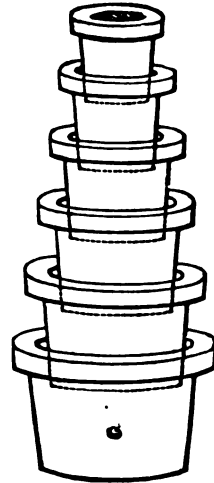
B1488.



B1489.

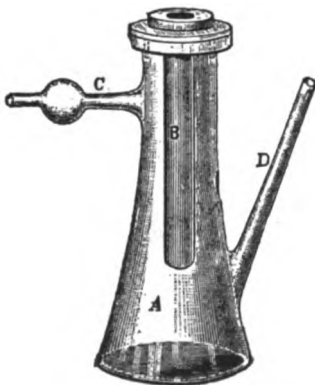


B1490.

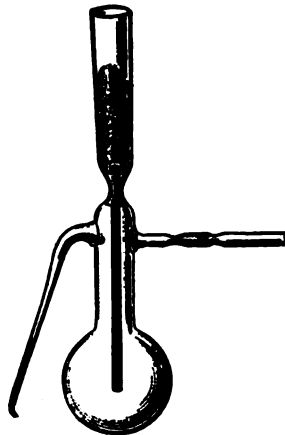


B1491.

- *B1491. **Culture Filtering Vessels**, Maassen's, set of 6, of porous porcelain with broad glazed flange;
 diameter of flange of smallest vessel, 45 mm.
 " " " " largest " 110 mm.
 inside dimensions " " " 50 x 80 mm.
 " " " " smallest " 25 x 30 mm.
 with 5 porcelain rings of 110 mm. diameter to fit above.
 so as to make all vessels fit on the same receiver, \$ 4.00



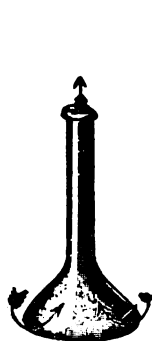
B1492.



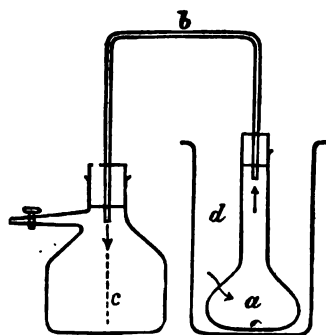
B1493.

- *B1492. **Culture Filter**, Reichel's, for bacteriological work, - \$ 3.00
 Bougies alone, - - - - - 1.00
 Flasks alone, - - - - - 1.00
 *B1493. **Culture Filter**, Pasteur's, - - - - - 1.50

APPARATUS AND UTENSILS FOR GENERATING CULTURES



B1494.

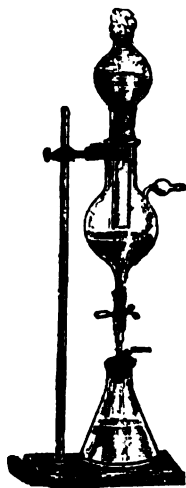


B1495.

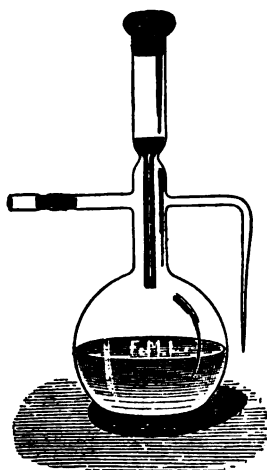
*B1494. **Culture Filter**, Pukal's Balloon Filters.

Capacity,	50	100	1000	ccm.
Price,	\$.60	.90	2.50	each.

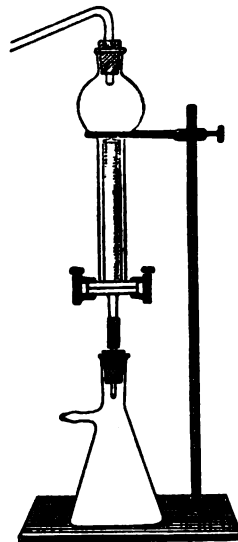
*B1495. **Culture Filter**, Kitasato's, - - - - - \$2.50



B1496.



B1497.



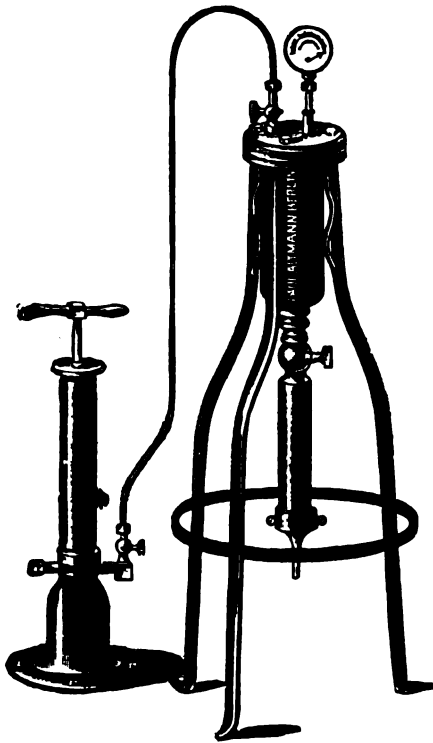
B1498.

*B1496. **Culture Filter**, Kinyoun's, glass parts only, - - \$5.00

*B1497. **Culture Filter**, Klebs & Tiegel's, with bougie, - 1.50

*B1498. **Culture Filter**, Novy's, complete with stand and
clamps, - - - - - 8.00
Bougie alone, - - - - - 1.25
Cylinder alone, - - - - - .90

APPARATUS AND UTENSILS FOR GENERATING CULTURES



B1499.



B1500.

- *B1499. **Culture Filtering Apparatus**, Chamberland's, consisting of a copper vessel with manometer, a Chamberland filter mounted in metal and pressure pump, complete, △\$80.00
 Extra bougies with porcelain top for same, each, 1.25
For other filtering apparatus and bougies see page 169.
- *B1500. **Culture Flask**, Billings', with ground stopper and cap, for gelatines and serum.

Capacity,	100	200	400	CC.
Price,	.60	.70	.85	each.



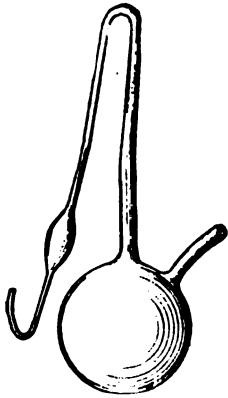
B1501.



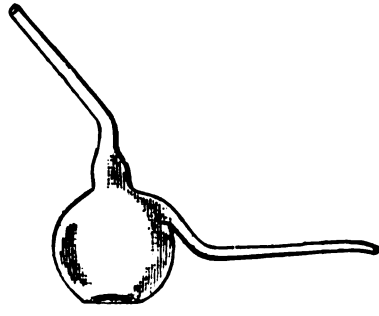
B1502.

- *B1501. **Culture Flask**, of heavy glass, for shipping cultures, capacity two liters, \$2.50
- *B1502. **Culture Flask**, Soyka's, flat, with parallel sides, .25

APPARATUS AND UTENSILS FOR GENERATING CULTURES



B1503.



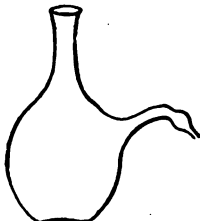
B1504.

*B1503. **Culture Flask**, Pasteur's, with long bent neck and side tube.

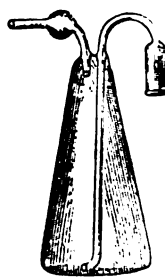
Capacity,	100	250	500	CC.
Price,	.50	.65	\$1.00	each.

*B1504. **Culture Flask**, Pasteur's Pipette Flasks.

Capacity,	100	250	500	CC.
Price,	.45	.65	.85	each.



B1505.



B1506.



B1507.

*B1505. **Culture Flask**, Lister's, for serum.

Capacity,	500	750	1000	CC.
Price,	.55	.75	.90	

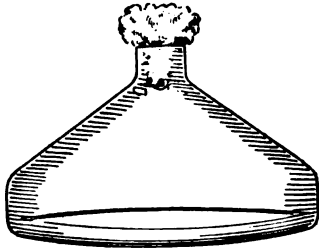
*B1506. **Culture Flask**, Maassen's, for the preservation and drawing off of sterile bouillon, serum, water, etc.

Capacity,	250	500	1000	CC.
Price,	\$.80	1.00	1.25	each.

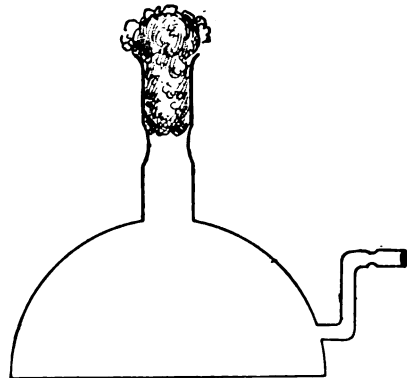
*B1507. **Culture Flask**, Pasteur's, for serum, etc., with neck drawn out to a point.

Capacity,	100	250	500	CC.
Price,	.15	.20	.30	each.

APPARATUS AND UTENSILS FOR GENERATING CULTURES

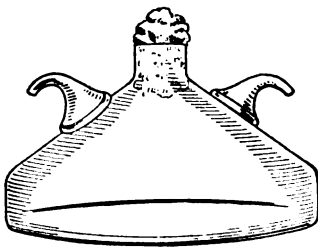


B1508.



B1509.

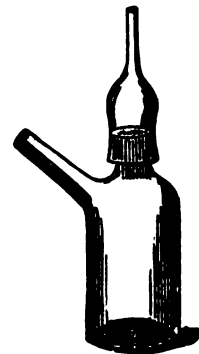
- *B1508. **Culture Flask**, Fernbach's Antitoxine Flasks, for diptheria cultures. Plain, capacity 2000 CC., each, \$1.00
- *B1509. **Culture Flask**, for Antitoxine. With one side neck, capacity 2000 CC., - - - - - each, 1.10
- *B1510. **Culture Flask**, for Antitoxine. With two side necks, capacity 1500 CC., - - - - - each, 1.25



B1510.



B1511.



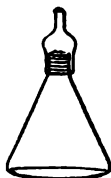
B1514.

- *B1511. **Culture Flask**, Chamberland's, with cap ground on.
- | | | | | |
|-----------|-----|-----|-----|-------|
| Capacity, | 50 | 100 | 200 | CC. |
| Price, | .35 | .40 | .50 | each. |
- B1512. **Culture Flask**, Chamberland's, with cap ground on and side neck, like Fig. 1514.
- | | | | | |
|-----------|-----|-----|-----|-------|
| Capacity, | 50 | 100 | 200 | CC. |
| Price, | .45 | .50 | .60 | each. |
- B1513. **Culture Flask**, Freudenreich's, with cap ground on.
- | | | | | |
|-----------|-----|-----|-----|-------|
| Capacity, | 50 | 100 | 200 | CC. |
| Price, | .40 | .50 | .65 | each. |
- *B1514. **Culture Flask**, Freudenreich's, with cap ground on and side neck.
- | | | | | |
|-----------|-----|-----|-----|------|
| Capacity, | 50 | 100 | 200 | CC. |
| Price, | .45 | .55 | .70 | each |

APPARATUS AND UTENSILS FOR GENERATING CULTURES.



B1515.



B1516.



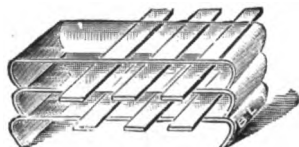
B1517.

- *B1515. **Culture Flask**, Erlenmeyer's, as used by Dr. Koch for bread cultures, gelatine, etc.

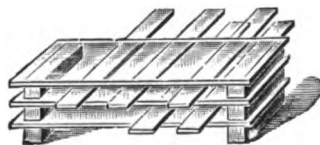
Capacity,	50	75	100 cc.
Price,	.10	.10	.15 each.

- *B1516. **Culture Flask**, Miquel's, with ground on helmet with tube,
- | | | | |
|---------|---------|----------|----------|
| 40 ccm. | 70 ccm. | 125 ccm. | 200 ccm. |
| \$.40 | .50 | .60 | .85 |

- *B1517. **Culture Flask**, Sternberg's bulb. For serum; a thin flask with neck drawn to a point, and made of clearest white glass. Capacity, 25 cc., - - - - - \$.20



B1518a.



B1518b.

- *B1518. **Culture Glass Benches**, for supporting culture plates. Size 13×5.5×1 cm.

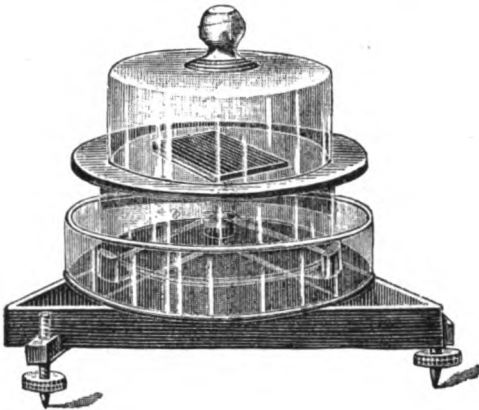
- | | |
|--|--------|
| a. Made of one piece with bent ends, - - - - | \$.20 |
| b. With cross-pieces cemented on and polished edges, - | .20 |

- *B1519. **Culture Ice Cooler**, Koch's, for pouring plate cultures. The apparatus is filled with ice in the middle dish during use. Complete, with wooden or iron tripod and spirit level, - - - - - 8.00
- | | |
|---|------|
| Heavy glass plate, polished, extra, - - - | 2.00 |
| With brass tripod, extra, - - - - | 4.50 |

- *B1519a. Wooden or iron tripod for levelling culture dishes, etc., alone, 3.50

Illustrated on page 121.

APPARATUS AND UTENSILS FOR GENERATING CULTURES



B1519.



B1520



B1521.

- Culture Levelling Tripods**, see B1519.
- *B1520. **Culture Moist Chamber**, Recklinghausen's, with parallel surfaces, - - - - - \$.50
- *B1521. **Culture Moist Chamber**, Klebs', with parallel surfaces, - - - - - .35
- Culture Media**, see Appendix.
- B1522. **Culture Plates**, white glass, plain, 130 × 85 mm., dozen, .40
- B1523. **Culture Plates**, white glass, edges ground, " .50
- B1524. **Culture Plates**, of crystal glass, with enamelled rim.
 Size, 100 × 60 mm., - - - each, .30
 " 130 × 105 " - - - " .40



B1525.



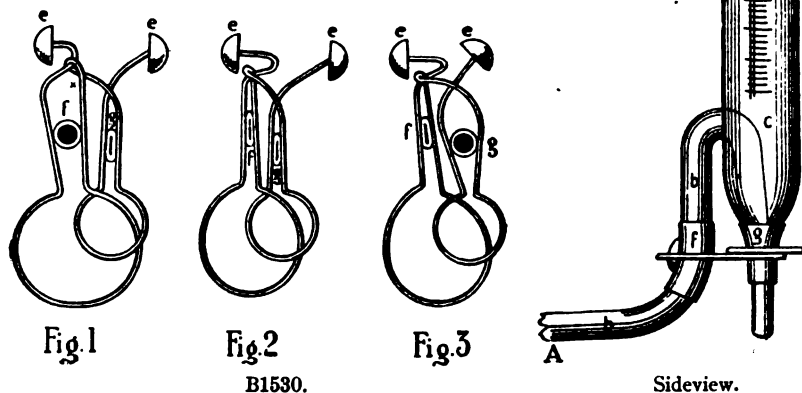
B1528.



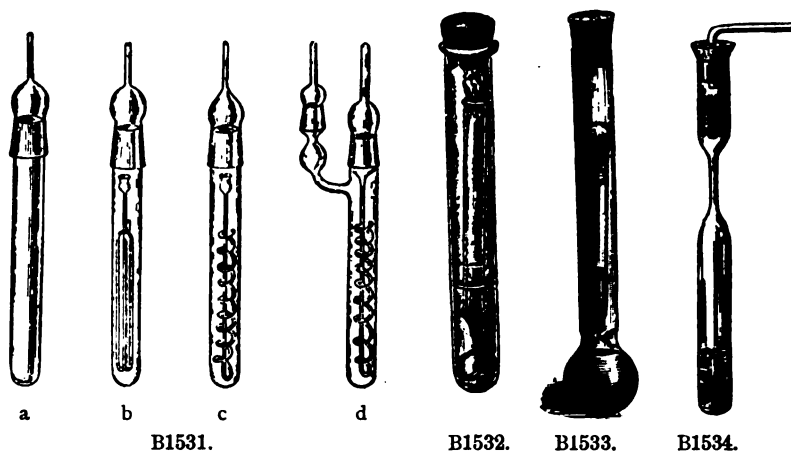
B1529.

- *B1525. **Culture Potato Borer**, to prepare discs for cultures in test tubes, - - - - - \$1.50
- B1526. **Culture Potato Brush**, for cleaning potatoes, - .15
- B1527. **Culture Potato Cutter**, Ravenel's, - - - 1.75
- *B1528. **Culture Potato Knife**, - - - .20
- *B1529. **Culture Separator**, Treskow's, for measuring exact quantities of culture material into test tubes.
- | | | | | |
|-----------|--------|------|------|-------|
| Capacity, | 250 | 500 | 1000 | ccm. |
| Price, | \$2.00 | 2.50 | 3.25 | each. |

APPARATUS AND UTENSILS FOR GENERATING CULTURES



- *B1530. **Culture Test-tube Filler**, Montgomery's, specially useful for drawing off culture preparations. It is made from a single piece of nicked spring-wire and is bent in such a way as to make the larger of the two springs weaker than the other, which arrangement allows the jaws of one to be closed before the jaws of the other are opened. Price, - - - - - \$2.00



- *B1531. **Culture Tubes**, Gayon's.

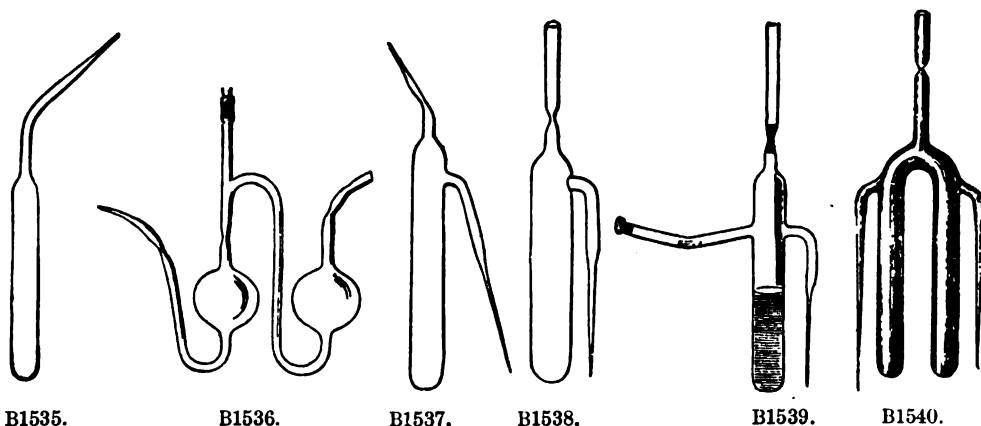
Form,	a	b	c	d	
Price,	\$.45	.65	.75	1.25	each.

- *B1532. **Culture Tube**, Buchner's, for anaerobe cultures, consisting of heavy test tube with holder for the small culture tube, - - - - - \$.75

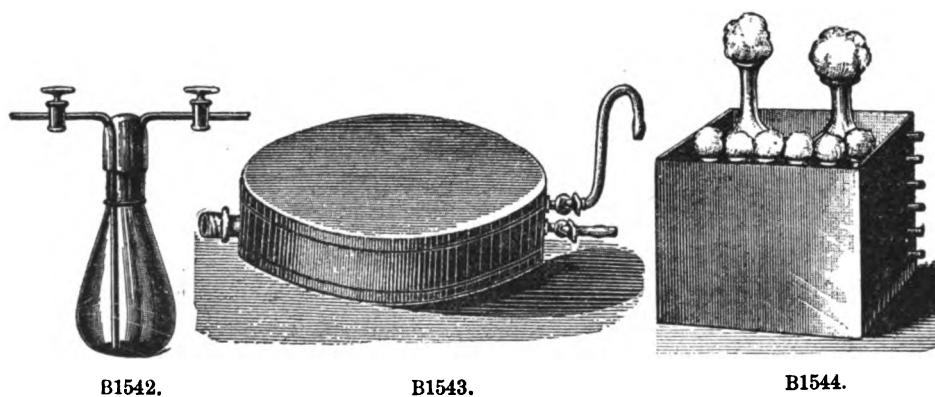
- *B1533. **Culture Tube**, Buchners, with bulb for pyrogallol solution - - - - - .75

- *B1534. **Culture Tube**, Gruber's, for anaerobe cultures, - - - - - .50

APPARATUS AND UTENSILS FOR GENERATING CULTURES

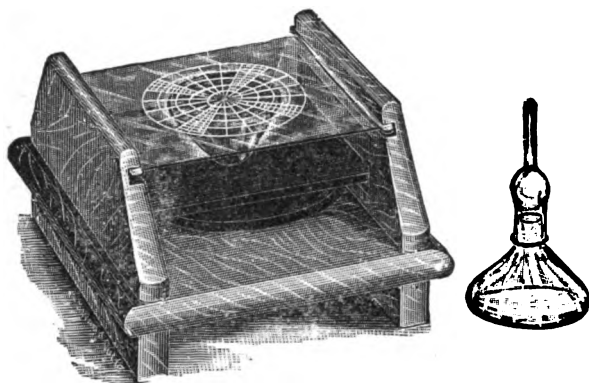


*B1535.	Culture Tube,	Chamberland's, for liquid's,	-	-	\$.20
*B1536.	Culture Tube,	Miquel's, with 2 bulbs,	-	-	.75
*B1537.	Culture Tube,	Chamberland's, for blood,	-	-	.30
*B1538.	Culture Tube,	Pasteur's, with neck,	-	-	.30
*B1539.	Culture Tube,	Duclaux's, with sideneck,	-	-	.40
*B1540.	Culture Tube,	Pasteur's, double tube,	-	-	.70
B1541.	Culture Tube,	Salmon's, with ground cap,	-	-	.65



*B1542.	Culture Wash Bottle,	with ground cap and two stopcocks, for Anaerobiosis,	-	-	-	\$4.50
*B1543.	Culture Water Cooler,	Dahmen's, for plate cultures, brass, nickel-plated	-	-	-	7.00
Can also be used with ice, which can be filled in through the large side opening.						
*B1544.	Culture Water Cooler,	Heidenreich's, for culture flasks, with 6 outlet tubes. Length, 400 mm.,	-	-	-	5.00

Bacteria Counting Apparatus



B1551.

*B1551. **Counting Apparatus**, Mason-Miller-McPherson's, for counting Bacteria, the latest and most convenient Bacteria counter, as described in the "Journal of the American Chemical Society," July, 1898.

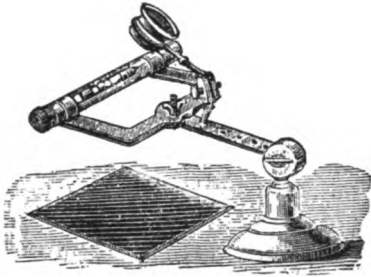
Price, complete, - - - - -	\$12.00
Miquel Flasks for same, 70 ccm. capacity, each,	.50
Engraved glassplates alone, - - - each,	1.50

The new apparatus illustrated above is so arranged that the ruled glassplate is a fixture, while the "Petri" dish rests upon a movable ebonite plate, raised or lowered by a wheel underneath, actuating a hollow screw. The dish may thus be kept firmly against the ruled plate, with no chance of slipping, and furthermore, it will always be in focus, regardless of the depth of the dish.

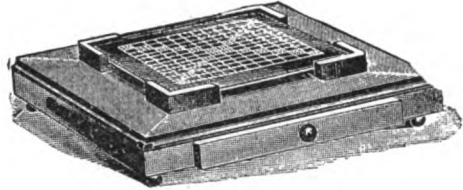
It is better to use a "Miquel" flask (see illustration) rather than a "Petri" dish, as the "plating" can be done in its field, obviating the transferring of the sample.

Under these circumstances, the neck of the inverted flask passes through a hole in the ebonite plate and into the hollow screw, while the wheel beneath raises the bottom of the flask against the ruled plate, same as when a "Petri" dish is used.

BACTERIA COUNTING APPARATUS

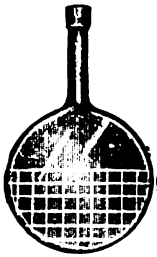


B1552.

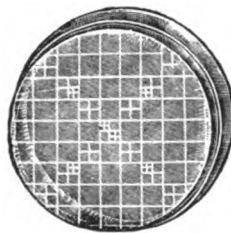
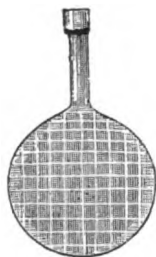


B1554.

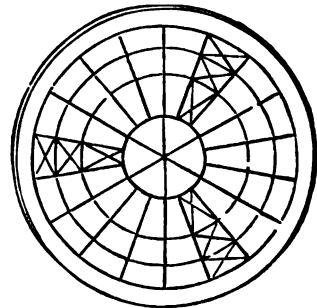
- *B1552. **Counting Apparatus**, Esmarch's, for counting Bacteria in tube cultures, mounted on stand, - - - \$6.75
- B1553. **Counting Apparatus**, Esmarch's, arranged for holding in the hand, - - - - - 4.00
- *B1554. **Counting Apparatus**, Wolfhuegel's, for counting Bacteria in plate cultures, complete with divided counting plate and a black and white plate for background; with drawer for accessories, - - - 5.00
- *B1555. Engraved Glass Plate alone, . - - - 1.25
- B1556. Tripod Lens for same, - - - - .75



B1557.



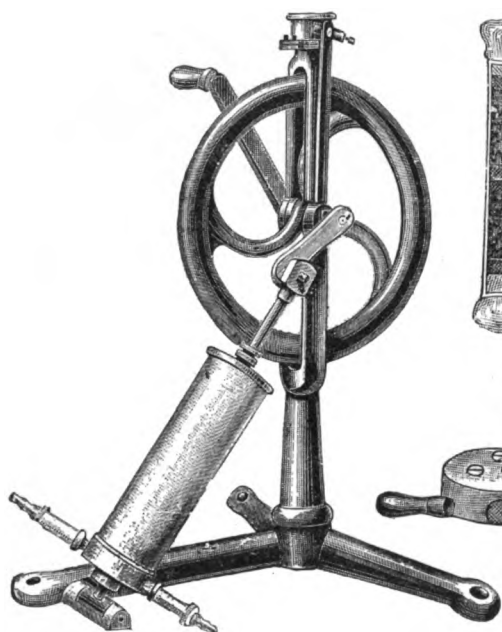
B1558.



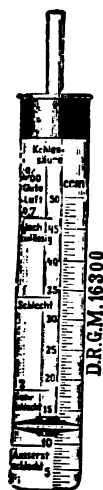
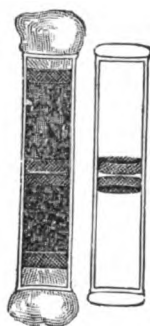
B1559.

- *B1557. **Counting Flask**, Roszahegyi's, with thin, parallel walls, engraved in square centimeters. Form a or b, - \$0.75
- *B1558. **Counting Dish**, Petri's, bottom dish divided in square centimeters, - - - - - .75
- *B1559. **Counting Plate** for Petri Dishes, after Lafar, exactly graduated in such manner that each field equals $1 \square \text{ cm.}$, 2.50

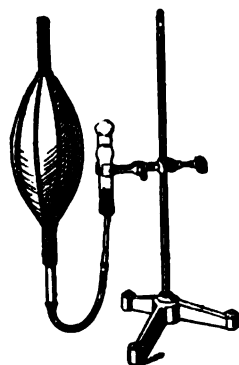
Apparatus for Air-, Soil- and Water-Analysis



B1561.



B1563.



B1564.

- *B1561. **Air Testing Apparatus** for the examination of micro-organisms in air, acc. to Petri, consisting of air pump with oscillating cylinders, fly-wheel, automatic arrangement counting to 1000, two valves, 10 glass tubes for the sand filter, one wooden form with 3 dies for making gauze sieves, 2 sieves in brass frames and one square foot of fine brass gauze, complete, - - - - Δ \$80.00
- B1562. **Air Testing Apparatus**, Petri's, as described above, but instead of the air pump with counting arrangement an Eimer & Amend's brass filter pump, - - - Δ 17.50
- *B1563. **Air Tester**, Dr. Wolpert's, for CO₂; **Carbacidometer**; the percentage of carbonic acid and the quality of air can be read directly on the instrument; a handy pocket apparatus; complete with solution and directions in box, - - - - Δ 6.00
- *B1564. **Air Testing Apparatus**, Ficker's, complete on stand, with 6 filter tubes, - - - - 10.00
 Glass tubes alone, - - - - 1.00

APPARATUS FOR AIR-, SOIL- AND WATER-ANALYSIS



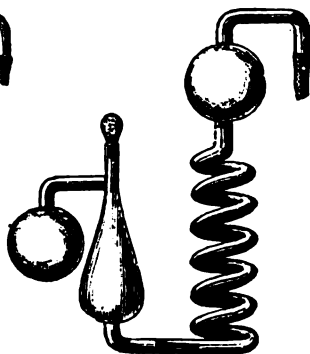
B1566.



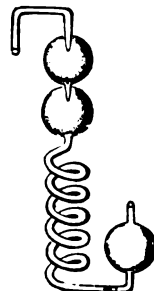
B1565.



B1567a.

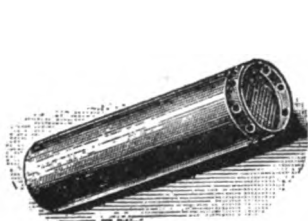


B1567b.

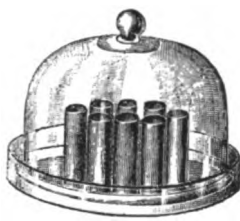


B1567c.

- *B1565. **Air Testing Apparatus**, Koch's, consisting of cylinder, glass dish and metal holder, - - - - \$1.25
- *B1566. **Air Absorption Tubes**, Pettenkofer's, small, - - 1.00
- B1566a. medium, - 1.25
- B1566b. large, - 1.50
- *B1567. **Air Absorption Apparatus**, Emmerich's, for absorbing micro-organisms from the air, shape a, b or c, - .75



B1568.



B1569.



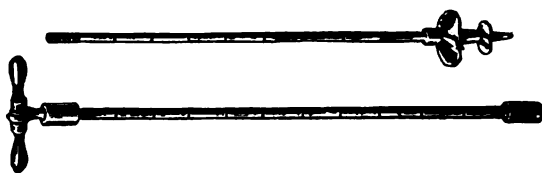
B1570.

- *B1568. **Soil-Sieve Cylinder**, for determining the water capacity of soil, nickel plated, - - - - \$1.50
- *B1569. **Soil Apparatus** for determining the water capacity of soils, consisting of 8 of the foregoing cylinders, glass dish and bell jar, - - - - 20.00
- *B1570. **Soil Cylinder**, of metal, Flügge's, for determining the volume of pores in soil, - - - - 7.50

APPARATUS FOR AIR-, SOIL- AND WATER-ANALYSIS



B1571.

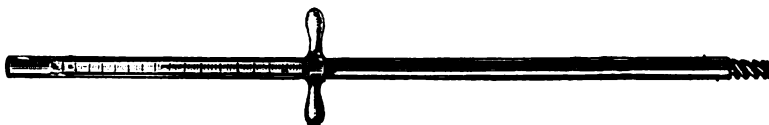


B1572.



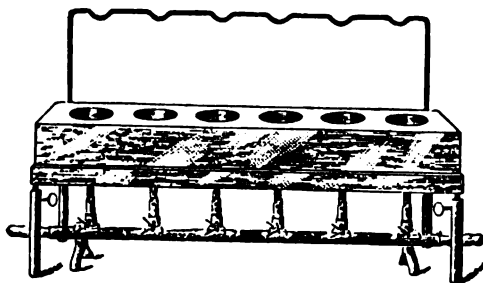
B1573.

- *B1571. **Soil Sieves**, after Muller, for soil analysis, made of brass, in sets of 3, with circular perforations of $\frac{1}{2}$ -1-2 mm. diameter, with brass bottom and cover, - \$5.00
- *B1572. **Soil Borer**, for taking soil samples from different depths for bacteriological investigations, consisting of steel borer, screwed to a steel rod with wooden handle.
- | | | | | | |
|-----------------------|--------|------|-------|---------------|------|
| Borer of | 50 | 105 | 160 | mm. diameter. | |
| Price, | \$5.50 | 6.50 | 10.00 | each. | |
| Extra lengths of rod, | - | - | - | per meter, | 2.00 |
- *B1573. **Soil Borer**, Fränkel's, for the same purpose.
- | | | | | | |
|-------------------------------|---|---|---|---|-------|
| 2 meter complete with handle, | - | - | - | - | 18.00 |
| Each additional meter, | - | - | - | - | 2.00 |



B1574.

- *B1574. **Soil Thermometer**, mounted in metal case with borer, grad. 0-60° C. in $\frac{1}{10}^{\circ}$, for taking temperature of soils at different depths.
- | | | | | | |
|------------------------------|---------------|-------|-------|-------|---------|
| Length of body below handle, | $\frac{1}{2}$ | 1 | 2 | 3 | metres. |
| | \$15.00 | 18.00 | 24.00 | 30.00 | each. |

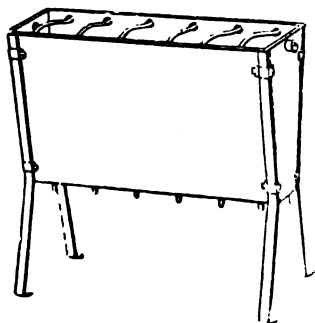


B1575.

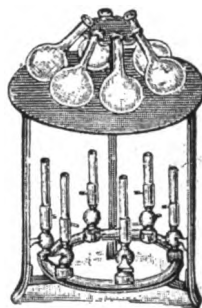
Soil Apparatus, Kjeldahl's, for nitrogen determinations, in soils, etc.

- *B1575. **Digesting and Distilling Shelf**, with 6 burners, \$16.00
- B1576. **Digesting and Distilling Shelf**, with 10 burners, 20.00

APPARATUS FOR AIR-, SOIL- AND WATER-ANALYSIS



B1577.

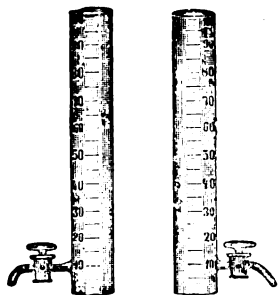


B1580.

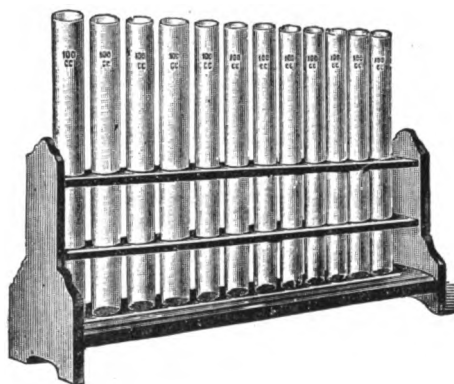
Kjeldahl Apparatus continued.

—*B1577.	Condenser , copper, tin-lined, 6 coils of pure block tin, - - - - -	25.00
— B1578.	Condenser , copper, tin-lined, 10 coils of pure block tin, - - - - -	45.00
— B1579.	Condenser , of zinc, 6 coils, - - - - -	20.00
○*B1580.	Digesting Shelf , round form, 6 burners, - - -	16.00

For Jena Glassware see General Catalogue.



B1581.



B1582-3.

*B1581.	Water Cylinder , Hehner's, for the colorimetric determination of iron in water, - - - - -	\$4.00
*B1582.	Water Cylinder , Nessler's, for colorimetric ammonia determination in water, graduated at	
	50 ccm. 100 ccm. 50 & 100 ccm.	
	\$.50 .60 .70	
*B1583.	Support with milkglass plate for 12 of above tubes,	4.50

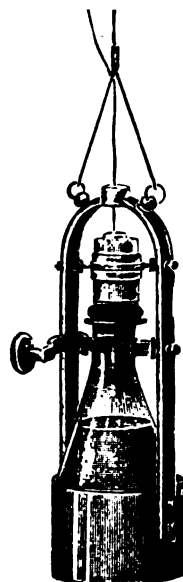
For further Apparatus for Soil Analysis see General Catalogue.

APPARATUS FOR AIR-, SOIL- AND WATER-ANALYSIS

B1584



B1585.



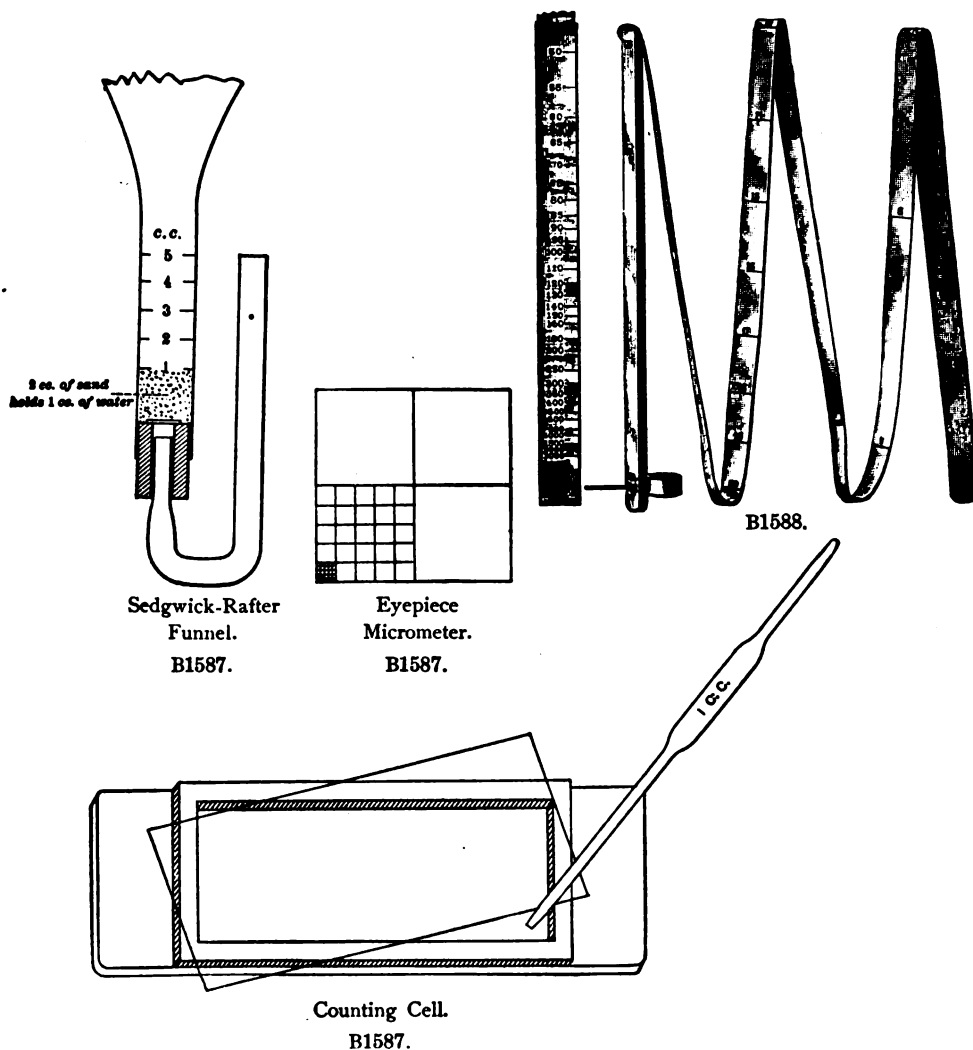
B1586.

- *B1584. **Water Thermometer**, Pettenkofer's, for taking the temperature of water in various depths; 0-40° C. in 1/5th. The lower part of this thermometer consists of heavy metal, partly hollow, to draw the water to be tested. The thermometer is encased in a metal tube with solid ring for suspension, - - - - Δ \$17.50
- *B1585. **Water-Hardness Apparatus, Hydrotimeter**, acc. to Boutron & Boudet, for hardness determination of water, complete, - - - - 1.50
 Extra cylinder, stoppered, graduated up to 40 cc., .60
 Extra test tube, graduated, 30 ccm. in 1/2 cc. - - .60
- *B1586. **Water Sampler**, Esmarch's, for taking samples of water at any depth, - - - - 7.50
- *B1587. **Water Apparatus for the Microscopical Examination of Water as described in "The Microscopy of Drinking Water" by Geo. C. Whipple.**
- | | |
|--|--------|
| Sedgwick-Rafter Funnel, graduated, with attachment and rubber stopper, - - - - | \$2.25 |
| Sedgwick-Rafter Funnel, plain, with attachment and rubber stopper, - - - - | 1.50 |
| Berkshire Sand, - - - - per lb., | .15 |
| Bolting Cloth Discs, - - - - per dozen, | .25 |
| Support for Funnel, - - - - | 1.50 |
| Counting Cell, - - - - | 3.25 |
| Cover Slips, - - - - | .25 |
| Eye-Piece Micrometer, - - - - | 3.50 |
| Pipettes, 1 cc. and 5 cc., - - - - | .25 |
| Graduated Flask, 25 cc., - - - - | .35 |
| Microscope, according to selection. | |

Illustrated on page 131.

APPARATUS FOR AIR-, SOIL- AND WATER-ANALYSIS

Apparatus as described in Whipple's "The Microscopy of Drinking Water."



○*B1588.	U. S. Flexible Turbidity Rod,	-	-	-	-	-	\$6.50
○ B1588a.	Ditto, Rigid, Folding	-	-	-	-	-	2.50
○ B1589.	Color Tubes, Aluminum, in Aluminum case, with color set of 6 mounted glasses,	-	-	-	-	-	30 00
	Extra set of Color Glasses,	-	-	-	-	-	15 00
○ B1590.	Jackson's Turbiditymeter with candle and graduated glass,						12 00

CENTRIFUGES



Percentage
Tube A,
for Medical
Centrifuge.

B1594.



B1591.



B1603.

- *B1591. **Centrifuge**, "New High Speed Medical," for the examination of Urine, Sputum, Blood, Pus and Milk, for hand power.

New High Speed Medical Centrifuge as shown in cut, with urine arm, two Aluminum Shields, one plain glass sediment tube and one graduated glass percentage tube "A," complete for the sedimentation of Urine,

\$13.00

- *B1592. Hematocrit for examination of blood and sputum, with tubes, - - - - -

\$6.00

- B1593. Purdy's New Precipitating Frame for the concentration of bacteria, with two tubes, - - - - -

5.00

- *B1594. Percentage tube for blood analysis, - - - - -

.75

- B1595. Small Sputum Tube for Hematocrit, - - - - -

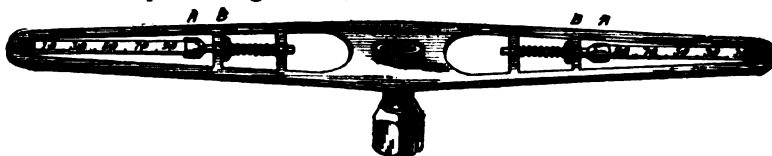
.30

- B1596. Precipitating tube with plug and 6 washers, - - - - -

.40

- B1597. Urine percentage tube, - - - - -

.75



B1592.

- B1598. Plain sediment tube same as A, but without graduation, - - - - -

\$.25

- B1599. Graduated milk bottle, - - - - -

.75

- B1600. Pipette for filling milk bottles, large or small, - - - - -

.25

- B1601. Two Solutions for milk examination, - - - - -

.50

- B1602. Aluminum Shield, - - - - -

.75

- *B1603. Concealed spear-pointed lancet, - - - - -

1.00

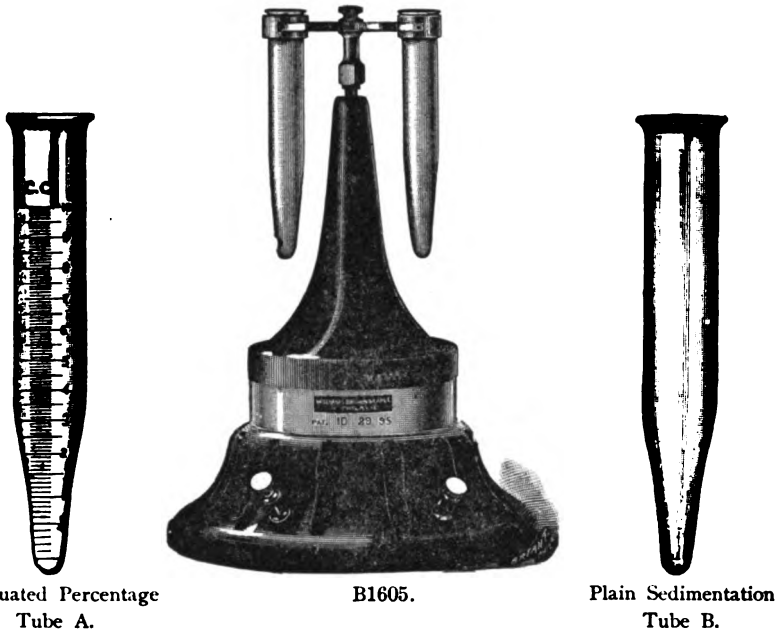


B1604.

- *B1604. Constricted Dropper, - - - - -

.20

CENTRIFUGES



Graduated Percentage
Tube A.

B1605.

Plain Sedimentation
Tube B.

- *B1605. **Centrifuge**, "Purdy Electric," for the examination of Urine, Sputum, Blood, Pus and Milk, to be operated by direct or alternating electric current or by galvanic or storage battery.

Purdy Electric Centrifuge for examination of urine, with double urine arm carrying two tubes, two plain glass sediment tubes and two graduated percentage tubes, - - - - -

\$32.00

Special arm for carrying four urine tubes will be supplied with the Purdy Electric Centrifuge for, extra, -

2.50

Special arm for four tubes for Purdy Centrifuge, where ordered separately, - - - - -

4.00

When ordering, please state whether for alternate or direct current.

- B1606. **Centrifuge**, "New Medical," for the examination of Urine, Sputum, Blood, Pus and Milk, to be operated by hand. With Hematocrit and one pair of tubes with lens front for blood analysis, one pair of tubes for sputum sedimentation; also with holder for urinary tubes, one pair of graduated glass percentage tubes A, and one pair plain tubes B. Complete in carrying case,

25.00

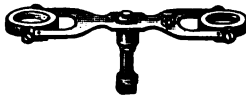
Without Hematocrit, blood and sputum tubes,

20.00

For accessories see page 132.

Special tubes and accessories made to order.

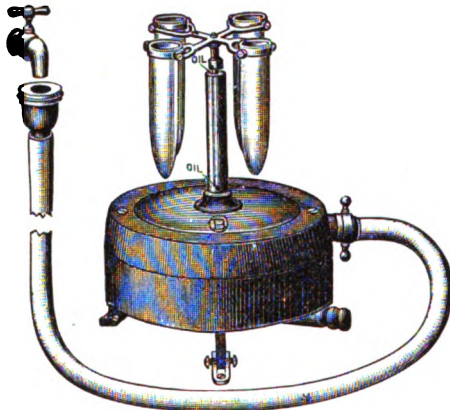
CENTRIFUGES



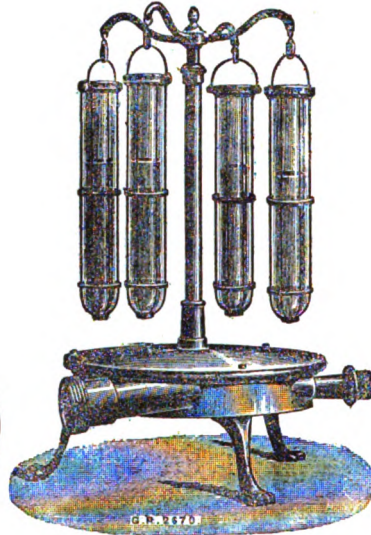
Single Arm.



Double Arm.



B1607.



B1609.



B1608.



B1610.

—*B1607. **Centrifuge, Water Motor**, for the rapid and convenient sedimentation of solids in urine and other fluids. Absolutely noiseless. The simplest and most efficient Power Centrifuge on the market. It may be attached to any ordinary faucet, the attachment being the work of a moment only. The speed is under absolute control by merely turning on or off the flow of water. Aluminum shields, four feet pressure tubing and patent hose connection included with each apparatus.

With single Arm, one each plain and graduated
15 cc. glass tubes, - - - - - \$13.00

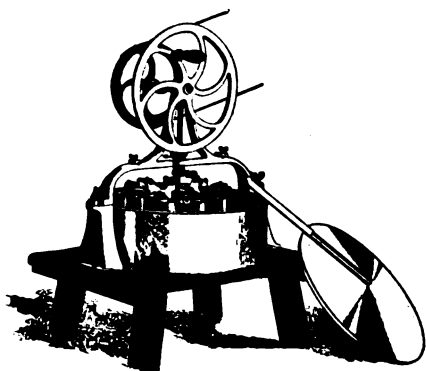
With double Arm, two plain and two graduated
15 cc. glass tubes, - - - - - 16.50

○*B1608. Speed gauge, - - - - - 2.00

*B1609. **Centrifuge, Water Motor**, Heynemann's, with four holders for test tubes; a very convenient and cheap apparatus for use where water pressure is available, 22 50

*B1610. **Centrifugal Tubes** for sedimentation purposes, after Newski, with ground-on bottom, allowing the sediment to be readily separated from the liquid in the tube. Price of tube with 2 detachable bottoms, - - - .75

CENTRIFUGES



B1611 (Fig. 1).

*B1611. **Centrifuge, Eimer & Amend's New Laboratory Universal Centrifugal Machine, for hand and power.** Height, as usually used, 60 cm.; height, if raised on legs for heating, 80 cm.; width, 60 cm.

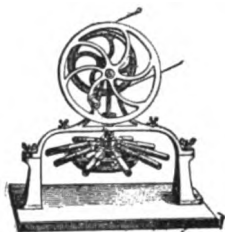
Price of machine, with 40 cm. copper nickel-plated pan and folding legs, without attachments, - - - \$35.00

Universal Frame, for 10 bottles, as described below, - - - \$2.50

Universal Frame for sieve, etc., as described below, - - - \$4.50

EXTRAS:

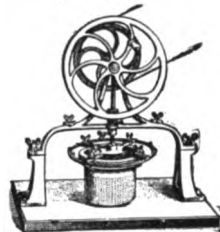
- Fig. 1. For **Milk-Fat Separations**. Set of 10 holders for Babcock milk bottles, etc. \$2.00
 For **Blood examinations** with extra Bunsen Burner for heating from below, 2.50
 Fig. 2. For **Urine Analysis**, Set of 10 holders for **Esbach's Albumenometers**, test tubes, etc., - - - 1.75
 For **Stomach Analysis**, Set of 10 holders for fæculometers, etc., - - 1.50



B1611 (Fig. 2).



B1611 (Fig. 3).

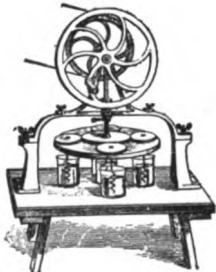


B1611 (Figs. 4, 5).

- Fig. 3. For **Experimental Work**, small perforated porcelain vessel for drying chemical salts, - - - 5.00
 Fig. 4. For **Experimental Work**, large perforated porcelain vessel for drying chemical salts, - - - 6.00
 Fig. 5. For **Experimental Work**, Centrifugal sieve, with 5 sets brass wire gauzes; mesh 20 to 100, - - - 10.00



B1611 (Fig. 6).



B1611 (Fig. 7).



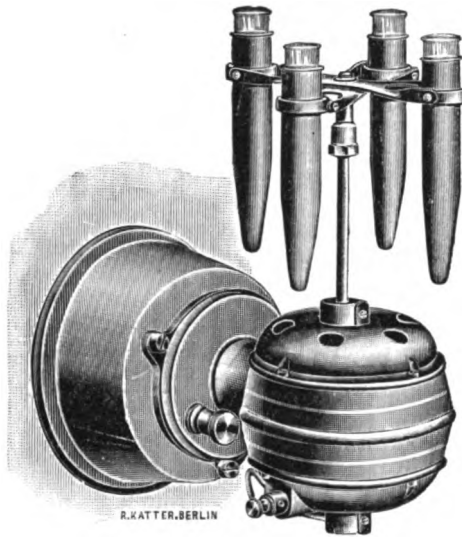
B1611 (Fig. 8).

- Fig. 6. For **Shaking**, fitted with eccentric and two stirrups, - - - 1.50
 Fig. 7. For **Stirring**, attachment for 5 beakers, complete with 5 centrifugal glass stirrers, 6.00
 Fig. 8. For **Grinding**, fitted with grinding attachment, imitating the motion of the hand when grinding, a plug will be cut to suit any size agate mortar, - - 15.00

This machine is **compact, manifold**, and so constructed that **all parts are easily accessible**. The whole **upper part is removable without trouble**.

CENTRIFUGES

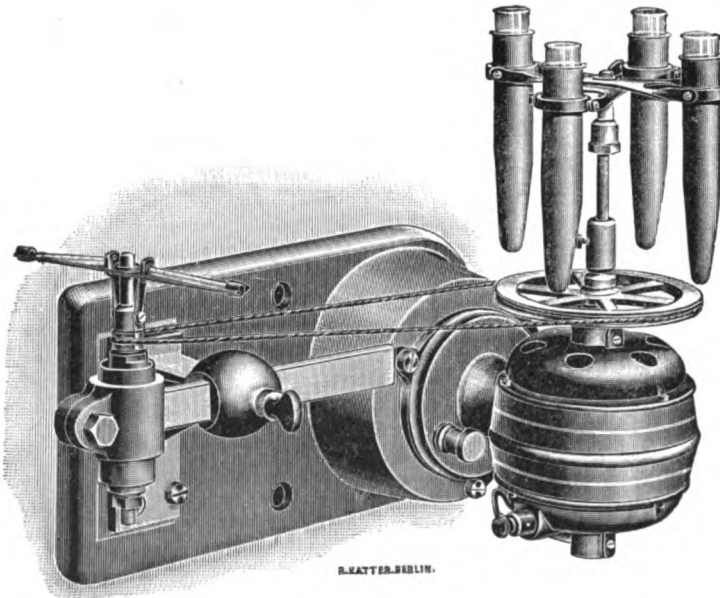
- *B1612. **Centrifuge** with electric motor, can be attached to any direct current and can be fastened to the wall. Price, complete with arm for two tubes, for 65 to 110 volts, - - - - - Δ \$38.00
 The same, for 120 to 220 volts, - - - - - Δ \$44.50
 Arm for four tubes for above, \$2.00



B1612.

- *B1613. **Centrifuge**, as above, but arranged for two velocities (about 10,000 revolutions per minute for blood and sputum examinations and 2000 revolutions a minute for urine-, water- and milk examinations). It has a second, adjustable and ball-bearing arm, turned

by a rope from the motor. When making urine examinations the arm attached to the motor itself, has to be removed. This centrifuge can also be used as a motor for small stirring or shaking apparatus.

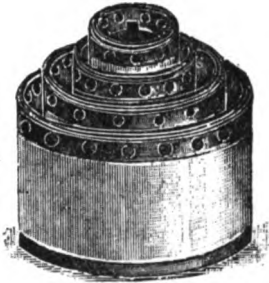


B1613.

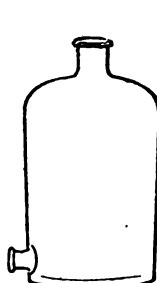
Price, complete as per illustration, for 65 to 110 volts, - - Δ \$44.00
 The same, for 120 to 220 volts, - - - - - Δ 50.50
 With arm for two tubes only, less, - - - - - 2.00

General Laboratory Apparatus

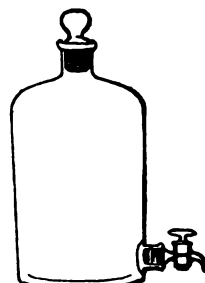
For a more complete list see our General Catalogue.



B1621.



B1624.

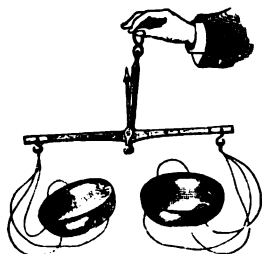


B1626.

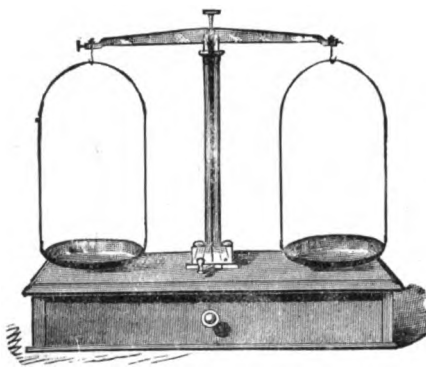
- *B1621. **Asbestos Airbaths**, set of 4, round, for various sizes of flasks, from $\frac{1}{4}$ to 3 L capacity, - - - - \$4.50
- B1622. **Asbestos Board**, in sheets of about 1 square meter, for protecting table and wall, - - - per lb., .15
 Thickness, 1 2 3 5 mm.
 Weight, 2 4 8 12 lbs. per sheet.
- B1623. **Asbestos Board**, 2 mm. thick, cut in \square .
 Size, 10 \times 10 13 \times 13 15 \times 15 cm.
 Price, .35 .50 .65 dozen.
- *B1624. **Aspirator Bottles**, with large tubulature near bottom for stopper, 125 250 500 ccm.
 Price, \$.30 .35 .45
 1 2 4 8 12 15 20 30 L capacity
 .65 .85 1.40 2.40 3.75 6.00 10.00 16.00
- B1625. **Aspirator Bottles**, with narrow outlet, for rubber connection, $\frac{1}{2}$ 1 2 L
 Price, \$.45 .65 .85
- *B1626. **Aspirator Bottles**, with ground-in stopper and glass stopcock ground into the tubulature.
 $\frac{1}{4}$ $\frac{1}{2}$ 1 2 4 8 12 15 20 30 L
 Price, \$1.60 1.80 2.00 2.50 3.50 5.00 7.50 10.00 14.00 18.00
- Autoclaves. See page 158.**
- *B1627. **Balances**, Hand Scales, with horn pans.
 Length of beam, 13 15 17 19 cm.
 Price, \$1.80 2.00 2.20 2.50 each.
- *B1628. **Balance**, Precision, for weighing Chemicals, etc., on polished mahogany box, beam has adjusting screws and pans are removable.
 Capacity, 75 180 300 600 1500 grms.
 Price, \$12 00 14 00 20.00 24.50 29.00

B1627—B1628 illustrated on next page.

GENERAL LABORATORY APPARATUS



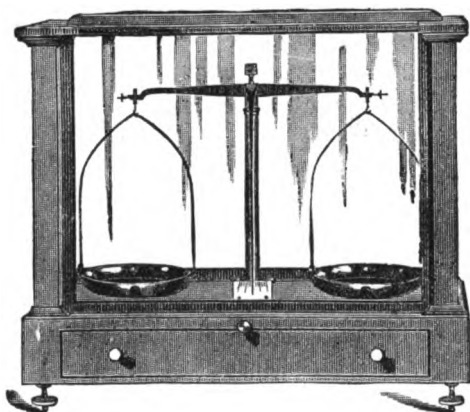
B1627.



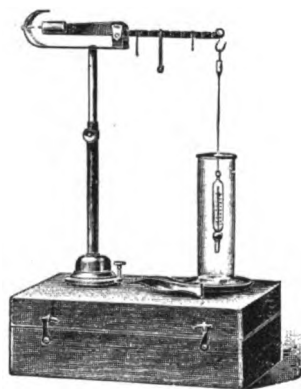
B1628.

—*B1629. **Balance**, Precision, same as foregoing, in glass case, with sliding front door.

Capacity,	75	180	300	600	1500	grms.
Price,	\$22.00	25.00	28.50	38.00	45.00	



B1629.



B1632.

B1630. **Weights** for foregoing balances, of best German make, in polished wooden block.

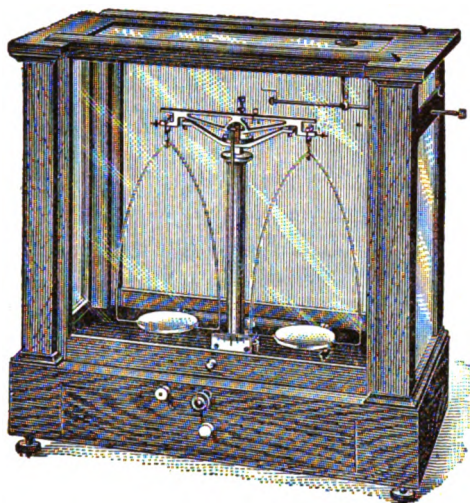
Set of 1 mgrm. to	50	100	200	500	1000	grms.
Price,	\$2.00	2.50	3.50	5.00	7.50	per set.

B1631. **Weights** as above, in velvet-lined mahogany case.

Set of 1 mgrm. to	50	100	200	500	1000	grms.
Price,	\$3.50	4.50	6.00	7.50	10.00	per set.

*B1632. **Balance**, Westphal's, for determining the specific gravity of liquids, with Reimann's Patent Thermometer, in polished box, - - - - - \$16 50

GENERAL LABORATORY APPARATUS

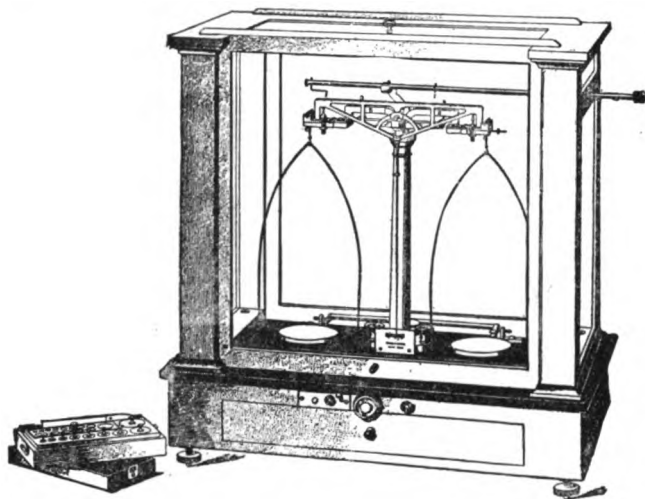


B1633.

- *B1633. **Balance, Analytical, Elmer & Amend's new aluminum short beam**, carries 100 grammes in each pan and is sensitive to $\frac{1}{10}$ milligramme; agate knife edges and bearings, extra wide bows and pans to take a 4 inch dish; improved arrest for pans, with automatic stop; in fine mahogany case, with glass top, the whole of best American workmanship. Price, \$48.00
- B1634. **Balance, B1633**, including set of accurate, non-corrosive, analytical weights, from 50 grammes to 1 milligram, the large weights down to 1 gramme being platinum plated, and the smaller ones and riders of solid platinum, in box with hinged or loose cover. Price, 60.00
- We claim for this balance that it is by far the best value ever offered for the money, and in proof of this, we have sold over 1000 since it was put on the market nine years ago, and not one has ever failed to give entire satisfaction.
- B1635. **Balance, B1633**, with improved hangers and triple arrest, raising the hangers from knife edges, as well as the beam; sensitive to $\frac{1}{20}$ milligramme. This improvement makes the balance in all respects equal to those usually listed at \$95.00. - Our price, 65.00

For a full line of other domestic and imported Balances and Weights, see our General Catalogue.

GENERAL LABORATORY APPARATUS



B1636.

- *B1636. **Balance, Analytical, Eimer & Amend's new non-corrosive short beam.** This is the well-known Dutch type of balance, with important improvements, all the metal parts being covered with gold, so that nothing is exposed to acid fumes but gold and agate. It is also furnished with a black plate glass base, which is invaluable for locating riders and small weights when dropped. Carries 200 grammes in each pan, and is sensitive to $\frac{1}{20}$ milligramme, - - \$125.00
Including set of non-corrosive platinum plated weights, 100 grammes to 1 milligramme and riders, 140.00



B1637.



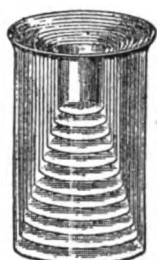
B1638.



B1639.

- | | | | |
|---------|---|-----------------------|--------|
| *B1637. | Balsam Bottle, with ground glass cap and loose glass rod. | Capacity, 30 cc., - - | \$.25 |
| | | Capacity, 60 cc., - - | .35 |
| *B1638. | Balsam Bottle, with ground glass cap and glass rod cemented in. | Capacity, 15 cc., - - | .30 |
| | | Capacity, 30 cc., - - | .40 |
| *B1639. | Balsam Bottle, with ground glass cap and triangular stopper, to prevent gumming. | Capacity, 30 cc., - - | .60 |
| | | Capacity, 60 cc., - - | .70 |

GENERAL LABORATORY APPARATUS



B1640.



B1642.

*B1640. **Beakers**, ordinary form, of best Bohemian glass.

Size, No.	1	2	3	4	5	6
Capacity,	75	125	200	300	450	600 cc.
Price,	.10	.12	.17	.22	.25	.30 each.

B1641. Set of 1-6 nested, - - - - - Price, \$1.00

*B1642. **Beakers**, Griffin's, low form, with lip, of best Bohemian glass.

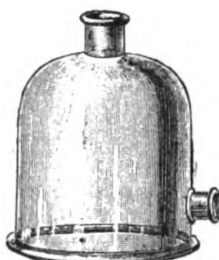
Size, No.	1	2	3	4	5	6
Capacity,	150	250	350	600	750	1000 cc.
Price,	.12	.18	.25	.30	.40	.50 each.

B1643. Set of 1-6 nested, . - - - - Price, 1.50

For other sizes and kinds see General Catalogue.



B1645.



B1646.



B1647.

B1644. **Belljar**, low form, with ground-in stopper, for vacuum apparatus, covering culture dishes, etc., 15 cm. high × 30 cm. diameter, - - - - -

\$4.00

*B1645. **Belljar**, tall form, heavy, with knob and ground rim, for covering Microscopes.

Dimensions,	150×300	180×380	230×450 mm. inside.
Price,	\$1.25	2.00	4.50 each.

*B1646. **Belljar**, with open neck and tubulature near bottom; with broad ground flange. Inside height. Diameter

200 × 150 mm.,	1.50
300 × 200 mm.,	2.85

*B1647. **Belljar**, double walled, after Sachs, for observing plants under differently colored liquids.

Dimensions,	300×120	400×150 mm. inside.
Price,	\$5.75	7.00 each.

GENERAL LABORATORY APPARATUS



B1648a.



B1648b.



B1649a.



B1649b.

*B1648. **Bottles**, narrow mouth, glass stoppered, for Solutions.

Capacity, 30 65 125 250 500 1000 cc.

Price, \$.80 1.00 1.25 1.60 2.50 3.90 doz.

*B1649. **Bottles**, wide mouth, glass stoppered, of best Bohemian glass, for histological and other specimens, Reagents, etc.

Capacity, 30 65 125 250 500 1000 cc.

Price, \$1.20 1.40 1.65 2.25 3.00 4.25 doz.

Shape a or b.

For a full line of other Bottles see our General Catalogue.

B1650. **Bottles**, for stock solutions, with syphon arrangement,
4 Liters capacity, - - - - -

\$2.50

REAGENT BOTTLES

Bottles, Eimer & Amend's New Reagent, extra heavy glass, with improved stoppers, and chemical names and symbols distinctly cut in the glass and enameled, provided with a very strong, polished stopper with projecting rim and square top. The rim protects the mouth of the bottle from dust, and the shape of the stopper makes it strong; furthermore, the shape permits it to be placed on the table, either inverted or sideways, without the ground part touching. This is a very good and at the same time cheap reagent bottle, and is the best and cheapest ever offered for the purpose.



B1651-1654.



B1651-1654.



Bottles for Potassium Hydrate, and other Chemicals, where an ordinary stopper clogs, are provided with a loose fitting stopper, of which the under part and the mouth of the bottle, are ground true to prevent evaporation.

GENERAL LABORATORY APPARATUS



B1651-1654.



B1655.

- | | | |
|----------|--|--------|
| ○*B1651. | E. & A. New Reagent Bottles, 125 ccm. cap., doz., | \$2.25 |
| ○*B1652. | E. & A. New Reagent Bottles, 250 ccm. cap., doz., | 2.75 |
| ○*B1653. | E. & A. New Reagent Bottles, 500 ccm. cap., doz., | 4.00 |
| ○*B1654. | E. & A. New Reagent Bottles, 1 L. cap., doz., | 5.00 |
| ○*B1655. | E. & A. New Reagent Bottles, saltmouth, | |
| | 125 ccm. capacity, - - - - - doz., | 2 50 |
| ○ B1656. | Set of 40 New Reagent Bottles, as per list below, | |
| | consisting of five 250 ccm. tinctures, twenty-eight | |
| | 125 ccm. tinctures and six 125 ccm. saltmouths and | |
| | one 30 ccm. dropping bottle, like illustration, - - - | 9 00 |
| ○ B1657. | Set of 40 New Reagent Bottles, packed in ship- | |
| | ping order, - - - - - | 9.25 |
| ○ B1658. | Set of 40 New Reagent Bottles, filled with c. p. | |
| | reagents, - - - - - | 17.25 |
| ○ B1659. | Set of 40 New Reagents Bottles, filled, sealed | |
| | and packed in shipping order, - - - - - | 19.25 |

250 ccm. Bottles.

Acid Sulfuric (dil.) H_2SO_4 .
 Acid Hydrochloric HCl.
 Acid Nitric HNO_3 .
 Ammonium Hydrate $(\text{NH}_4)\text{HO}$.
 Blank, 1.

125 ccm. Bottles.

Acid Sulfuric conc. H_2SO_4 .
 Ammonium Chloride $(\text{NH}_4)\text{Cl}$.
 Ammonium Oxalate $(\text{NH}_4)_2\text{C}_2\text{O}_4$.
 Ammonium Sulfoyanide $(\text{NH}_4)\text{CNS}$.
 Ammonium Molybdate $(\text{NH}_4)_2\text{MoO}_4$.
 Ammonium Carbonate $(\text{NH}_4)_2\text{CO}_3$.
 Acid Acetic $\text{HC}_2\text{H}_3\text{O}_2$.
 Alcohol $(\text{C}_2\text{H}_5)\text{OH}$.
 Silver Nitrate AgNO_3 (amber).
 Barium Chloride BaCl_2 .
 Calcium Hydrate CaH_2O_2 .
 Cupric Sulfate CuSO_4 .
 Ferric Chloride Fe_2Cl_6 .
 Hydric Sulfide H_2S (amber).
 Ammonium Sulfide $(\text{NH}_4)_2\text{S}$ (amber).

Magnes Sulfate MgSO_4 .
 Mercuric Chloride HgCl_2 .
 Mercurous Nitrate $\text{Hg}_2(\text{NO}_3)_2$.
 Platin Chloride PtCl_4 . (30 ccm. drop'g bot.)
 Lead Acetate $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2$.
 Potass Acid Chromate $\text{K}_2\text{Cr}_2\text{O}_7$.
 Potass Ferrocyanide $\text{K}_4\text{Fe}(\text{CN})_6$.
 Potass Iodide KI.
 Sodium Carbonate Na_2CO_3 .
 Sodium Acetate $\text{NaC}_2\text{H}_3\text{O}_2$.
 Sodium Phosphate Na_2HPO_4 .
 Uran Acetate $(\text{UO})\text{C}_2\text{H}_3\text{O}_2$.
 Ether $(\text{C}_2\text{H}_5)_2\text{O}$.
 1 Blank.

125 ccm. Saltmouth Bottles

Sodium Carbonate Na_2CO_3 .
 Borax.
 Ferrous Sulfate FeSO_4 .
 Potass Cyanide KCN.
 Ammon. Sod. Phosphate.
 $\text{Na}(\text{NH}_4)\text{HPO}_4 + 4\text{H}_2\text{O}$.
 Test Paper.

GENERAL LABORATORY APPARATUS

STENDER'S REAGENT BOTTLES WITH INDESTRUCTIBLE LABELS

INDISPENSABLE FOR LABORATORIES!



Label and } B
Lettering }
Tincture bottle



Label and Lettering A



Label and } B
Lettering }
Saltmouth bottle

○*B1660. **Stender Reagent Bottles** with **non-destructible** lettering are one of the indispensable requirements of a first class bacteriological laboratory. Heretofore it has been almost impossible to furnish such a bottle, especially one with **black enamelled lettering**, on a white back-ground, which would **resist the corrosive action of acids and alkalis**. Only one firm has succeeded in placing such a bottle on the market. We have handled and tried this special make, and after more than ten years experience, it has proved to be the only satisfactorily labelled reagent bottle.

We are, therefore, pleased to announce to our patrons that we have secured the sole agency for these famous "**Stender Reagent Bottles**". A great many laboratories of prominent scientific and technical institutions have been equipped with these bottles and the latter have always given entire satisfaction.

(Instead of black letters on a white ground we also furnish this excellent **Stender Bottle** with cut out letters on white background.)

We **import these bottles to order**—reagent and stock bottles—marked with **any desired Name, Nomenclature, Symbol, Number, etc.**, in any size, for College, Hospital and Pharmaceutical use.

GENERAL LABORATORY APPARATUS

PRICES

"STENDER" BOTTLES WITH BLACK LETTERS ON WHITE BACK GROUND

TINCTURE BOTTLES (narrow mouth) high (or flat) Stopper, NAMES ONLY

Capacity.	30	50	125	200	250	400	500	750	1000	2000 ccm.
Duty paid.	\$.30	.35	.40	.45	.50	.60	.65	.70	.80	1.05
Duty free.	\$.18	.22	.25	.28	.30	.38	.40	.45	.50	.65

SALT MOUTH BOTTLES (wide mouth) flat (or high) Stoppers, NAMES ONLY

Capacity.	30	50	125	200	250	400	500	750	1000	2000 ccm.
Duty paid.	\$.34	.38	.42	.48	.52	.65	.68	.75	.85	1.10
Duty free.	\$.20	.23	.26	.30	.32	.40	.42	.45	.52	.70

SYMBOLS extra

For Bottles:	up to 250 ccm. incl.;	up to 500 ccm. incl.;	up to 2000 ccm. incl.
Duty paid.	per bottle \$.10	.13	.15
Duty free.	" \$.6	.8	.10

DESK NUMBER extra

For Bottles:	up to 250 ccm. incl.;	up to 500 ccm. incl.;	up to 2000 ccm. incl.
Duty paid.	per bottle \$.5	.7	.10
Duty free.	" \$.4	.5	.6

Bottles with Transparent Letters on White Vitrified Back Ground, Same Prices.

We keep in stock "STENDER REAGENT BOTTLES" with the following Names and Symbols: 34 Tinctures and 6 Salt-mouth, according to Fresenius.

250 ccm. Bottles.

Acid Sulphuric Dil. H_2SO_4
 Acid Hydrochloric Conc. HCl
 Acid Nitric Conc. HNO_3
 Ammonium Hydroxide NH_4OH
 Acid Sulphuric H_2SO_4
 Ammonium Chloride NH_4Cl
 Ammonium Oxalate $(NH_4)_2C_2O_4$
 Ammonium Sulphocyanide NH_4CNS
 Ammonium Molybdate $(NH_4)_2MoO_4$
 Ammonium Carbonate $(NH_4)_2CO_3$
 Aëd, Acetic $HC_2H_3O_2$
 Alcohol C_2H_5OH
 Silver Nitrate $AgNO_3$ (Amber)
 Barium Chloride $BaCl_2$
 Calcium Hydroxide $Ca(OH)_2$
 Cupric Sulphate $CuSO_4$
 Ferric Chloride Fe_2Cl_3
 Hydrogen Sulphide H_2S (Amber)
 Ammonium Sulphide $(NH_4)_2S$ (Amber)
 Magnesium Sulphate $MgSO_4$

Mercuric Chloride $HgCl_2$
 Mercurous Nitrate $Hg_2(NO_3)_2$
 Platinic Chloride $PtCl_4$ (30 ccm- dropper)
 Lead Acetate $Pb(C_2H_3O_2)_2$
 Potassium Dichromate $K_2Cr_2O_7$
 Potassium Ferrocyanide $K_4Fe(CN)_6$
 Potassium Iodide KI
 Sodium Carbonate Na_2CO_3
 Sodium Acetate $NaC_2H_3O_2$
 Sodium Phosphate Na_2HPO_4
 Uranium Acetate (UO) $C_2H_3O_2$
 Ether $(C_2H_5)_2O$
 2 Blank

125 ccm. Salt mouth Bottles.

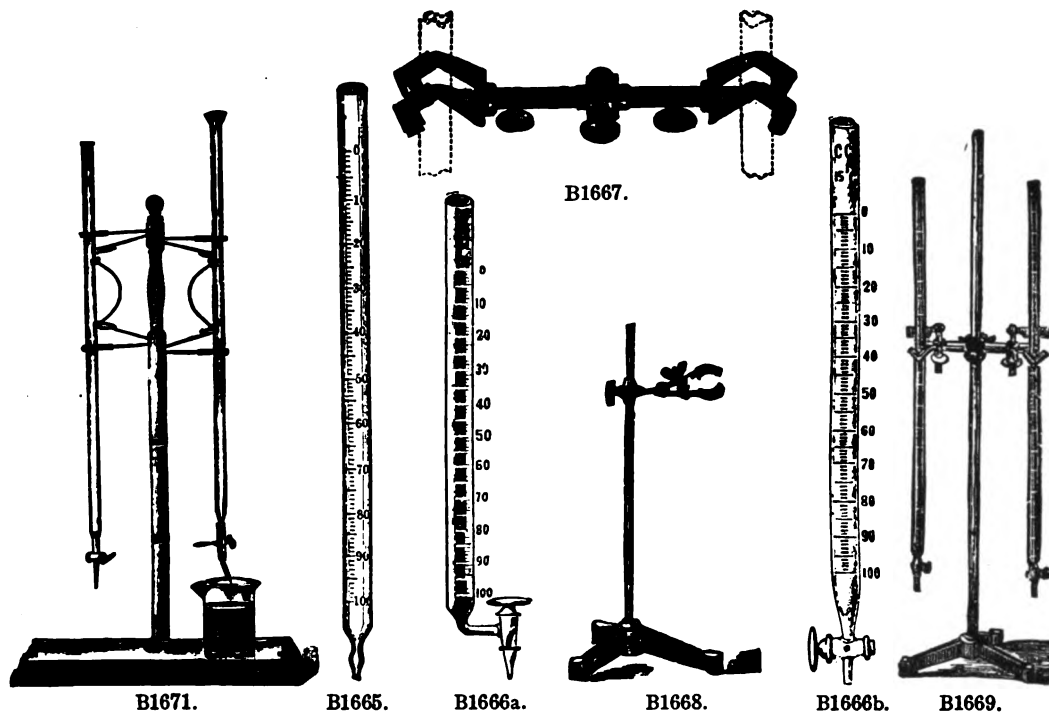
Sodium Carbonate Na_2CO_3
 Borax $Na_2B_4O_7$
 Ferrous Sulphate $FeSO_4$
 Potassium Cyanide KCN
 Sodium Ammonium Phosphate
 $Na(NH_4)HPO_4 + 4H_2O$
 1 Blank

The above set of 40 "STENDER BOTTLES" packed in shipping order,	-	-	-	\$23.00
Duty free,	-	-	-	12.00
do. filled with C. P. Reagents, according to Fresenius' "Qualitative Analysis,"	-	-	-	32.00
Duty free,	-	-	-	21.00

When ordering please state style of letters, shape of labels and form of stoppers.

GENERAL LABORATORY APPARATUS

B1661.	Brushes,	for test tubes, plain, - - -	dozen,	\$.25
B1662.	Brushes,	for test tubes, sponge end, - - -	dozen,	.75
B1663.	Brushes,	for bottles and flasks, - - -	dozen,	1.50
B1664.	Brushes,	Camel Hair, small, medium, large.		
	Price,	.20 .25 .35	dozen.	

**Burettes, Mohr's accurately graduated.**

	25 cc. $\frac{1}{10}$	50 cc. $\frac{1}{10}$	100 cc. $\frac{1}{5}$
*B1665.	For pinchcock, .80	1.35	1.80
*B1666a & b.	With stopcock, \$1.60	2.00	2.60

For other Burettes see General Catalogue.

*B1667.	Burette Clamp,	Allihn's, for 2 burettes, - - -	\$4.00
*B1668.	Burette Support,	of iron, single, - - -	.80
*B1669.	Burette Support,	of iron, double, - - -	1.25
B1670.	Burette Support,	of wood, double, - - -	1.25

*B1671. **Burette Support.** The clamp is extremely simple, and perfect in action. A pressure of the thumb opens the rubber covered V-shaped jaws which close upon the burette and hold it firm and true.

It is usually sold in the form shown in the cut, single or double, hard wood base with porcelain plate, clamp of japanned spring wire on turned maple upright.

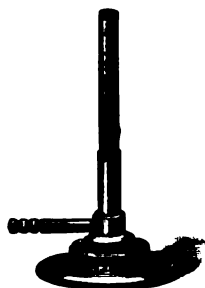
Price, - - - double, \$2.50; single, 1.50

It may be ordered attached to iron rod, to screw permanently into table, or on wooden bracket to fasten against the wall.

Price, - - - double, \$2.00; single, 1.25

GENERAL LABORATORY APPARATUS

HEATING APPLIANCES

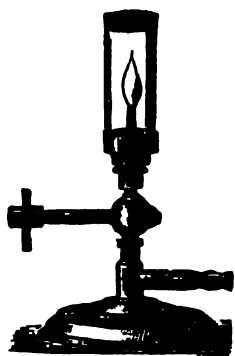


B1672.

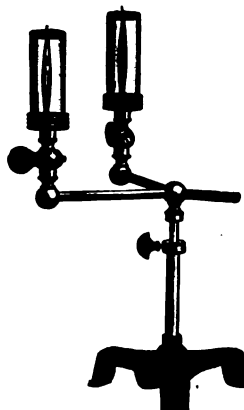


B1673.

- *B1672. **Burner**, Bunsen's, with regulator, - - - - \$.35
 —*B1673. **Burner**, Bunsen's, low shape, - - - - .50

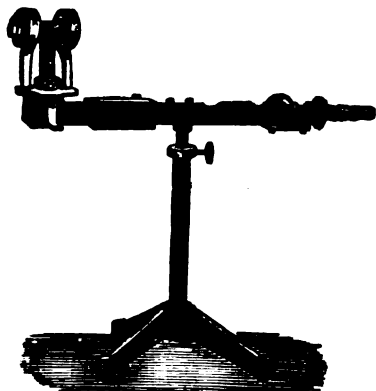


B1674.



B1675.

- *B1674. **Burner**, Microchemical, with stopcock and chimney, \$2.00
 —*B1675. **Burner**, Microchemical, with two flames, on adjustable stand, - - - - 5.50



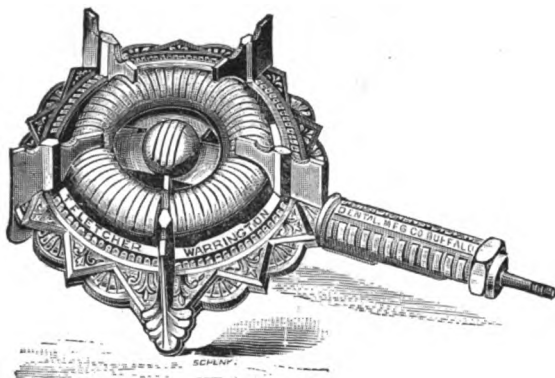
B1676.



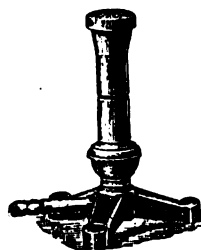
B1677.

- *B1676. **Burner**, Koch's Safety, on adjustable stand, large, - \$10.00
 —*B1677. **Burner**, Koch's Safety, small, 13 cm. high, - - 5.00

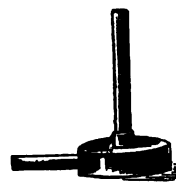
GENERAL LABORATORY APPARATUS



B1678.



B1679.

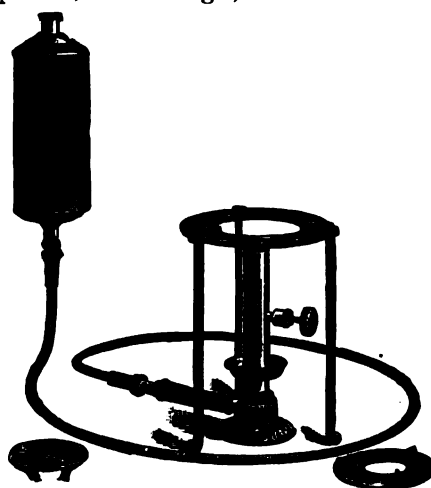


B1680.

- *B1678. **Burner**, Fletcher's Radial, No 2 R - - - - \$2.00
 ○*B1679. **Burner**, Fletcher's Safety, with gauze top.
 Top diameter, 22 30 40 mm.
 Price, \$1.60 1.85 2 40 each.
 —*B1680. **Burner**, Reischauer's Microburner, - - - - 1.00
 — B1681. **Burner**, small, nickel-plated, 4 cm. high, - - - - .50



B1682.

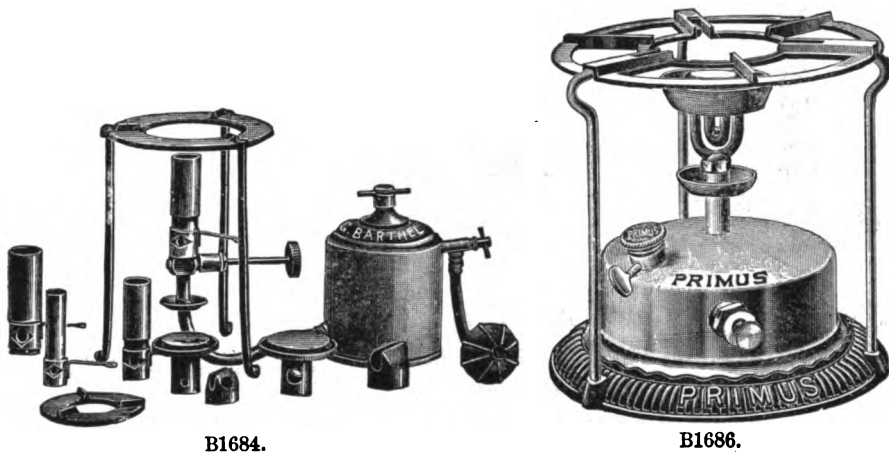


B1683.

- *B1682. **Burners**, specially adapted for heating funnels, so called
 Ring Burners, of brass.
 Diameter, 75 100 125 150 mm.
 Price, \$1.25 1.50 1.75 2.00 each.
 With Air Regulator, - - - - 75c. extra.
 ○*B1683. **Burner for Alcohol**, Barthel's; requires no wick, and
 cannot explode; complete with 1½ meters flexible
 metallic tubing and reservoir of 1 Litre capacity.
 Small size, - - - - - \$7.50
 Large size, - - - - - 9 00
 Tripod - - - - - .50
 The small size is equal to two, and the larger to
 four ordinary Bunsen burners.

GENERAL LABORATORY APPARATUS

HEATING APPLIANCES



B1684.

B1686.

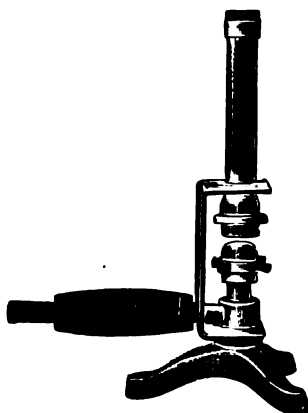
- *B1684. **Burner for Gasoline, Barthel's.** This is the most perfect gasoline burner for chemical purposes, as it is substantially constructed of brass; it is perfectly safe and cannot leak; it gives a flame which can be readily adjusted from a very small one to a powerful blast of a maximum temperature of 2000° Celsius. \$6.75
- B1685. **Burner for Gasoline, Barthel's,** as above, instead of rubber-pressure bulb (as shown in illustration), the reservoir is provided with a small air-compressing pump and a small pressure-gauge. - - - - 8.50
 Tripod for above, - - - - .50
- To give a variety of flames in size and shape, we supply extra burners (as shown in illustration),
 for larger flames, - - - each, 1.00
 for smaller flames, - - - " .50
- Circular burners (as per illustration), - large, each, 1.00
 small, " 50
- *B1686. **Burner, "Primus No. 1,"** to burn Kerosene without wick, 21 cm. high, 22 cm. top diameter, - - - 5.00

GENERAL LABORATORY APPARATUS

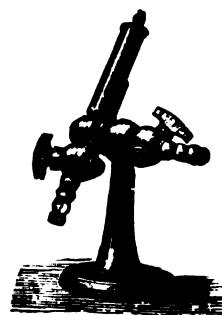
HEATING APPLIANCES



B1687.

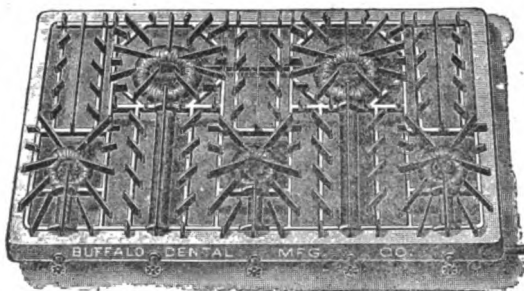


B1688.



B1690.

- *B1687. **Burner**, E. & A.'s New form of plain Bunsen Burner, without nipple. The draft enters from the base, thus permitting ready cleaning, and avoiding the clogging of the nipple. - - - - - \$.30
 With gauze cap, to prevent the striking back of the flame, - - - - - .35
- *B1688. **Burner**, E. & A.'s "Universal" Burner for all fuel gases, such as gasoline, acetylene, water and regular coal gas. Will burn all of these gases with perfect satisfaction. The burner tube being rigid, it always remains in the same position. - - - - - 1.25
- B1689. **Burner**. Prof. McCay's Safety Burner, - - - - - 1.50
- *B1690. **Burner- (Blast) Lamp**, Bunsen's improved form, for gas and air, for bending glass tubes, etc., - - - - - 3.60
- B1691. **Foot Blower** to operate the same, - - - - - 5.00

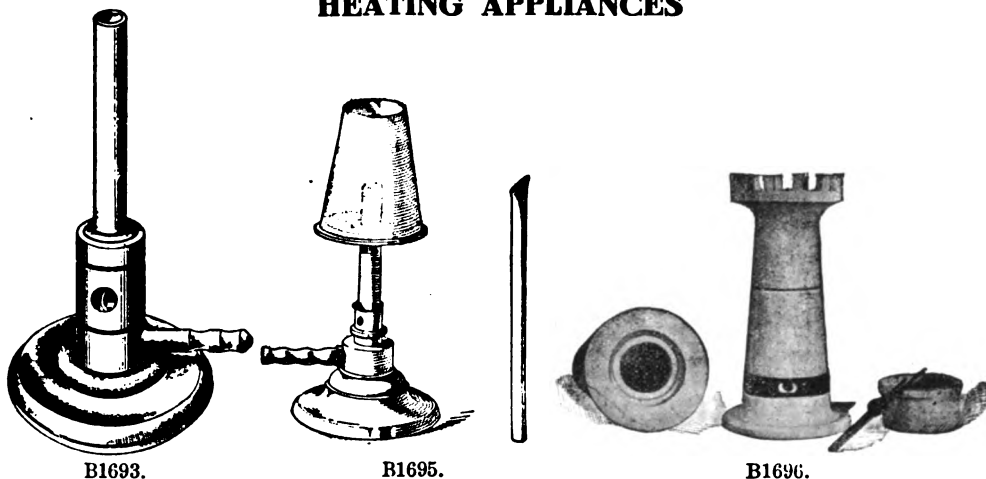


B1692.

- *B1692. **Burner- (Heating) Plates**, for gas, with stopcocks.
- | | | |
|-------------------------------------|-------|--------|
| a) Size, 29×47 cm., with 2 burners, | - - - | \$5.00 |
| b) " 49×56 " " 3 " " | - - - | 7.50 |
| c) " 53×88 " " 5 " " | - - - | 18.00 |

GENERAL LABORATORY APPARATUS

HEATING APPLIANCES



- B1693. B1695. B1696.
- *B1693. **Burner**, new, non-corrodible Bunsen Burner. Made entirely of Royal Meissen **Porcelain**, with air regulator, 16 cm. high, - - - - - \$2.00
 Extra burner tubes, - - - - - .35
- B1694. **Burner**, as above, made of Royal Berlin **Porcelain**, 16 cm. high, - - - - - 1.75
- *B1695. **Burner**, of Royal Berlin **Porcelain**, as above, with star, hood and flame-spreader, - - - - - 3.00
- *B1696. **Burner**. Improved form of non-corrodible Laboratory Burner, Chaddock's. This porcelain burner is incorrodible, the gas exit being of glass, and is supplied with flame spreader, asbestos disc and asbestos rings. Small chimney is for platinum triangles. Not containing any metal parts it is highly recommended for poison analysis. - - - - - 2.00

For other Burners see our General Catalogue

ELECTRICAL HEATING APPLIANCES



B1697.

- *B1697. **Bath and Heater**, electrically heated by **Kryptol**, the new electric resistant material. For voltages up to 250 volts. Temperature and current consumption may be regulated by massing the Kryptol in a thicker or thinner layer. Size of bath, 20×30 cm., without cover, \$12.00
 Ditto, with insulated iron cover, - - - - - 14.00

For other sizes of this heater, see special circular.

GENERAL LABORATORY APPARATUS

ELECTRICAL HEATING APPLIANCES



B1698.



B1700.

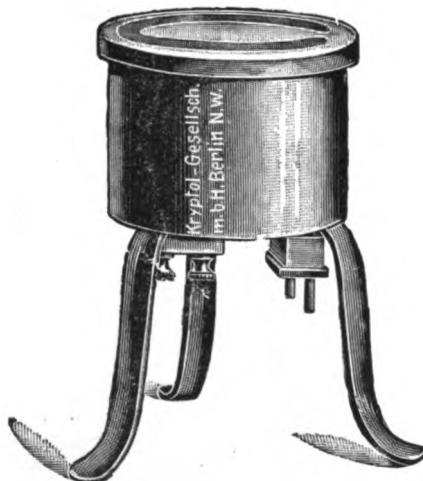


B1701-1702.

- *B1698. **Bath, Metal, Electrically Heated**, 15 cm. diameter, using up to 440 Watts, - - - - - \$12.00
- B6199. **Bath, Air, Electrically Heated**, 22 cm. diameter, for three heats, - - - - - 10.00
- *B1700. **Electric Coil Heaters** for immersion into water, paraffin, toluol, etc., of all sizes and dimensions, from \$6.50 to 25.00
- *B1701. **Heating Plate**, 24×30 cm., using up to 880 Watts, - 12.00
- *B1702. **Heating Plate**, 30×45 cm., using up to 1500 Watts, 15.00



B1703.



B1704.

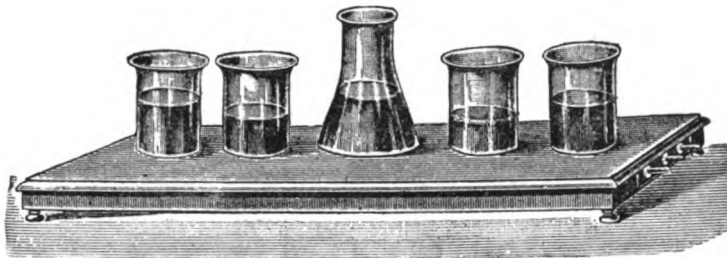
- *B1703. **Heating Apparatus** for electrically heating glass vessels containing inflammable liquids without danger; regular Edison lamp, current of 110 volts.
- Size for ½ L flasks, - - - - - \$3.75
- Size for 1 L flasks, - - - - - 4.00
- *B1704. **Heater** for flasks up to half liter capacity **heated electrically by Kryptol**. This apparatus serves the same purpose as a water-bath. Size, 25×20 cm. 17.50

For other KRYPTOL apparatus ask for special circular.

Kryptol apparatus can be attached to any current of any voltage.

GENERAL LABORATORY APPARATUS

ELECTRICAL HEATING APPLIANCES



B1705.

- *B1705. **Heating Plate**, electrically heated, for flasks, beakers, etc. Size, 40×11 cm., - - - - - \$25.00
- B1706. **Stove, Circular Portable**, 15 cm. diameter, using up to 440 Watts, - - - - - 6.00
- B1707. **Stove, Circular Portable**, 25 cm. diameter, using up to 1100 Watts, - - - - - 13.00

GENERAL LABORATORY APPARATUS

- B1708. **Botanical Study Apparatus**, acc. to Detmer, imported to order only; prices on application.



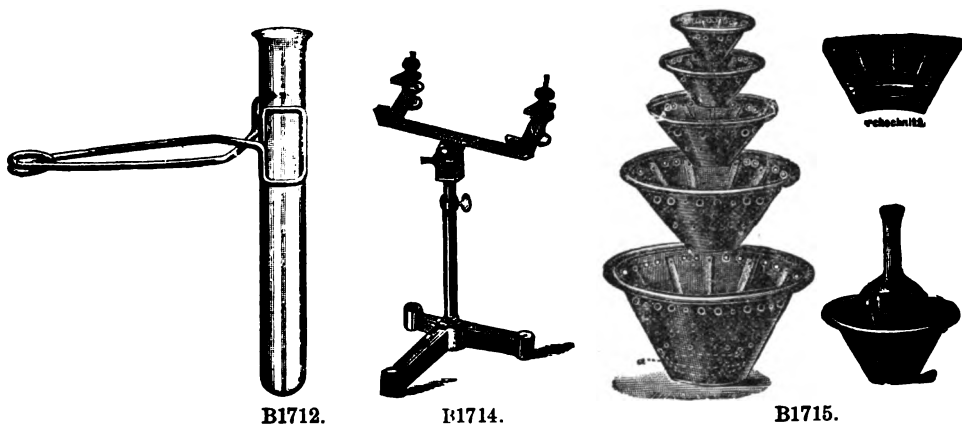
B1709.



B1711.

- *B1709. **Casseroles**, of best Thuringia Porcelain, with covers and wooden handles.
- | Capacity, | 1/8 | 1/4 | 1/2 | 1 | Liter. |
|-----------|--------|-----|-----|------|--------|
| Price, | \$.50 | .60 | .90 | 1.60 | each. |
- B1710. **Casseroles**, of Royal Berlin Porcelain, porcelain handles.
- | No. | 3 | 3a | 4 | 5 | 6 |
|-----------|--------|-----|-----|------|------------|
| Capacity, | 150 | 200 | 375 | 750 | 1250 cc. |
| Price, | \$.50 | .70 | .90 | 1.40 | 1.75 each. |
- *B1711. **Clamps**, Stoddart's, of spring wire, nickel-plated, for test tubes.
- | | | | |
|---|---|---|-----|
| Small, for tubes 5 to 25 mm. diameter, | - | - | .10 |
| Large, for tubes 15 to 40 mm. diameter, | - | - | .15 |

GENERAL LABORATORY APPARATUS



*B1712. **Clamps**, of spring wire, nickel-plated.

No. 1 B, for Beakers No. 0 to No. 2.

No. 3 B, " " No. 2 to No. 4.

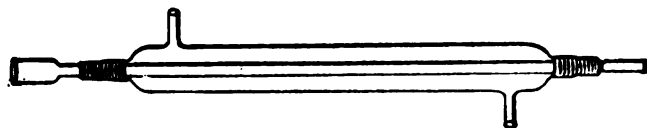
No. 3 D, " Dishes of diam. 7 cm. to 10 cm.

No. 5 D, " " " 10 cm. to 15 cm.

No. 7 D, " " " 15 cm. to 18 cm.

No. 2 T, " Test Tubes and Necks of Flasks of
diam. 15 mm. to 40 mm.

Price, any size, - - - - - \$.25



B1713.

*B1713. **Condensers**, Liebig's, of glass.

Length of body, 40 50 60 80 cm.

Price, \$1.10 1.25 1.60 2.00 each.

*B1714. **Condenser Support**, Bunsen's, of iron, with universal movement, - - - - large, \$3.00; small, \$2.50

*B1715. **Cones**, Babo's, sheet iron, lined with asbestos strips, for heating flasks evenly.

11 13 15 18 22 cm. diameter.

\$.60 .75 .85 .95 1.10 each.

Complete set, - - - - - 4.25

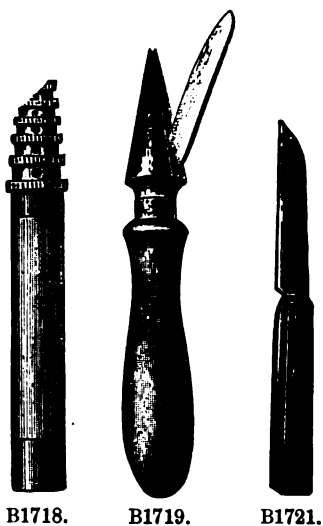
GENERAL LABORATORY APPARATUS

B1716. **Corks, best quality**, cut from selected wood, XX, regular length.

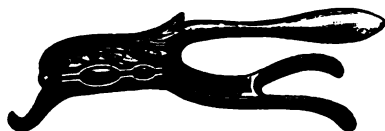
	No. 1,	2,	3,	4,	5,	6,	7,	8,	9,	10.
Diameter of small end,	$\frac{1}{4}$,	$\frac{1}{8}$,	$\frac{3}{8}$,	$\frac{7}{8}$,	1 ,	$1\frac{1}{8}$,	$1\frac{1}{4}$,	$1\frac{1}{2}$,	$1\frac{3}{4}$,	2 .
Price per gross,	.20,	.22,	.24,	.26,	.32,	.38,	.50,	.60,	.72,	.90.

	No. 11,	12,	13,	14,	15,	16,	17,	18,	19,	20.
Diameter of small end,	$1\frac{1}{2}$,	$1\frac{3}{4}$,	2 ,	$2\frac{1}{4}$,	$2\frac{1}{2}$,	$2\frac{3}{4}$,	3 ,	$3\frac{1}{4}$,	$3\frac{1}{2}$,	$3\frac{3}{4}$ in.
Price per gross,	\$1.00,	1.10,	1.20,	1.35,	1.50,	1.85,	2.00,	2.20,	2.40,	2.60

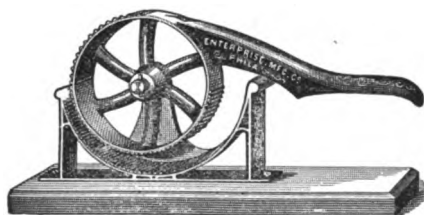
B1717. **Corks**, best quality, extra long, No. 1 to 10, 20% higher.



*B1718.	Cork Borers , of brass, set of six,	-	-	-	-	\$1.00
*B1719.	Cork Borer Sharpener , of steel,	-	-	-	-	1.00
B1720.	Corkfile , with fine point, 15 cm. long,	-	-	-	-	.20
*B1721.	Cork Knife , best quality,	-	-	-	-	.20



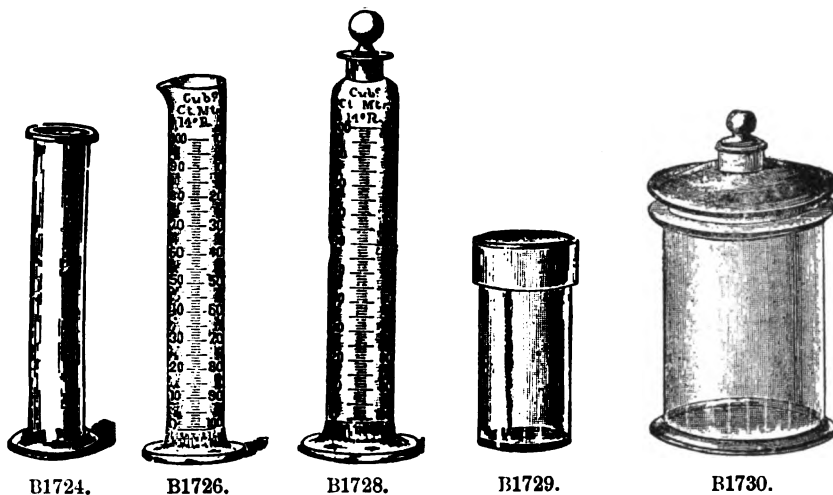
B1722.



B1723.

*B1722.	Cork Press , flat form,	-	-	-	-	.25
*B1723.	Cork Press , Rotary, taking large corks,	-	-	-	-	.65

GENERAL LABORATORY APPARATUS

*B1724. **Cylinders**, plain, with ground rim.

Height,	15	20	25	30	40 cm.
Ins. Dia.	2.5	4	4	5	6.5 cm.
Price,	\$.30	.40	.50	.60	.75 each.

B1725. **Cylinders**, single graduated, with lip.

Capacity,	25	50	100	200	500	1000 cc.
Price,	\$.35	.40	.60	.70	1.05	2.00 each.

*B1726. **Cylinders**, double graduated, with lip.

Capacity,	25	50	100	200	500	1000 cc.
Price,	\$.40	.50	.70	.80	1.20	2.25 each.

B1727. **Cylinders**, single graduated, stoppered.

Capacity,	25	50	100	200	500	1000 cc.
Price,	\$.50	.60	.80	1.00	1.50	2.35 each.

*B1728. **Cylinders**, double graduated, stoppered.

Capacity,	25	50	100	200	500	1000 cc.
Price,	\$.60	.70	.85	1.10	1.65	2.45 each.

*B1729. **Cylinders**, of heavy white glass, with loose cover for holding test tubes for bacteriological purposes.

Size,	18×6	18×8	18×10 cm. diameter.
Price,	\$.35	.40	.50 each.

*B1730. **Cylinders**, Hofman's Lecture, of heavy white glass, open top and bottom, large ground flanges and a dome-shaped tubulated cover, with stopper, ground on. Height, 40 cm.; diameter, 23 cm., - - - Δ \$7.50

GENERAL LABORATORY APPARATUS



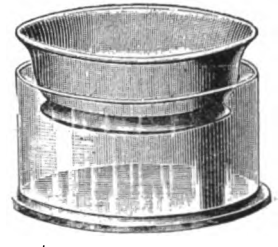
B1732.



B1733.



B1734.

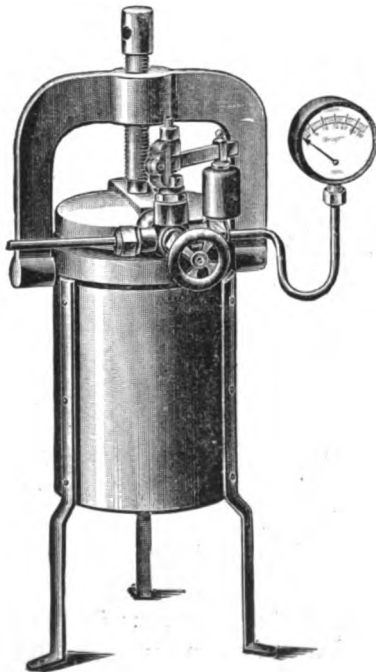


B1735.

B1731.	Desiccator , Scheibler's usual form ; 10 cm. diameter,	\$.60
B1731a.	15 cm. diameter,	1.25
*B1732.	Desiccator , Scheibler's, with stopcock, 14 cm. diameter,	3.50
*B1733.	Desiccator , Hempel's, 12 cm. diameter, - - -	3.75
*B1734a.	Desiccator , Reinhardt's, 15×15 cm. inside, - - -	4.00
*B1734b.	8×8 cm. inside, - - -	2.00

Hempel's and Reinhardt's Desiccators have the advantage over the other forms, that the whole interior space can be used ; on Reinhardt's, the air-tight ground cover cannot slip off, as the flange around the top is slightly turned upward.

*B1735.	Dialysers , Graham's, of heavy white glass.	
	Diameter of Dish, 10 15 20 25 cm.	
	Price, \$1.00 1.25 1.75 2.50 each.	



B1736.



B1737.

Digesters (Autoclaves) see page 158.

GENERAL LABORATORY APPARATUS

- *B1736. **Digesters (Autoclaves)**, latest improved form, for sterilizing at high temperature, with strong cylindrical vessel of forged copper, bronze cover, iron clamp and center-screw, safety valve and gauge.

Dimensions,	100 × 220 mm.	125 × 250 mm.	175 × 300 mm.
Capacity,	1¾ Litres.	3¾ Litres.	7¼ Litres.
For 25 Atmospheres,	\$60.00	\$66.00	\$99.00
" 50	79 00	99 00	130.00

- *B1737. **Digesters (Autoclaves)**, according to Dr. Pfungst, tube form, 350 mm. long, 40 mm. inside diameter, tested to 200 At.
- | | | | | |
|--|---|---|---|--------------|
| a) of iron, lead lined or enamelled, | - | - | - | \$46.00 |
| b) of Aluminum bronze, | - | - | - | 66.00 |
| Manometer, Oil Reservoir and Thermometer, extra, | - | - | - | 35.00 |
| Copper Oil Bath, on tripod, | - | - | - | 24.00 |
| Clay Cylinders, | - | - | - | each, " 2.50 |
- B1738. **Digesters (Autoclaves)**, Lautenschlaeger's latest construction, specially arranged for bacteriological purposes, with strongly forged copper kettle, manometer, burner, etc.
- | | | | |
|--|---|---|---------|
| a) 150 × 300 mm. inside, for 2 At. pressure, | - | - | △100.00 |
| b) 200 × 300 " " " 2 " " | - | - | △125.00 |
| c) 250 × 400 " " " 2 " " | - | - | △225.00 |
- For temperatures up to 130° C.

B1736—B1737 illustrated on page 157.

- *B1739. **Digester (Autoclave)**, for sterilization under steam pressure.



B1739.

The boiler is made of extra heavy copper, tin-lined, is 60 cm. deep, and 27 cm. in diameter, with a perforated rack inside.

The lid is made of cast brass, tinned on the inside and nickel-plated on the outside. It is made with a ground joint, no washers being necessary to make it steam tight, and is held in position by six screw clamps.

The apparatus is provided with a pressure gauge, thermometer and safety valve; the latter is set at 30 lbs., but may be increased or decreased. The apparatus is tested to stand a pressure of 50 lbs. to the sq. in. There is a small pet valve which must be kept open until the steam escapes, thereby forcing all the air out of the boiler.

The boiler is supported by a sheet iron base 20 cm. high.

The extreme height of the apparatus is 100 cm.

It may also be used as an ordinary steam sterilizer.

Price, complete, with three tube Burner, - \$60.00

The same with hinged lid, additional, - 5 00

GENERAL LABORATORY APPARATUS

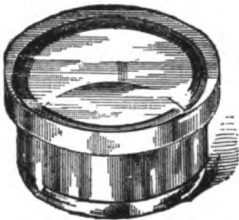


B1740.

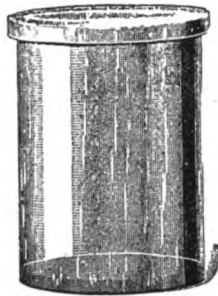


B1742.

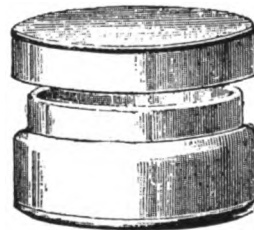
- *B1740. **Dishes**, Evaporating, of best Bohemian glass.
 Diameter, 7 8 9 12 13 15 cm.
 Price .18 .20 .25 .30 .35 .45 each.
 Price, in nests of 6, - - - - - nest, \$1.50
- B1741. **Dishes**, Evaporating, best Royal Berlin Porcelain.
 No. 00 0 1 2 3 4 5 6
 Capacity, 60 85 110 140 195 250 390 475 CC.
 Price, .18 .20 .30 .32 .35 .45 .55 .70 each.
- *B1742. **Dishes**, Evaporating, best Thuringia Porcelain.
 Capacity, 60 100 150 250 350 500 CC.
 Price, .15 .20 .25 .35 .40 .45 each.
- B1743. **Dishes**, Evaporating, best Royal Meissen Porcelain.
 Capacity, 30 60 125 200 250 500 CC.
 Price, .15 .20 .30 .35 .50 .70 each.
- For larger sizes, see our General Catalogue.



B1744a.



B1744b.

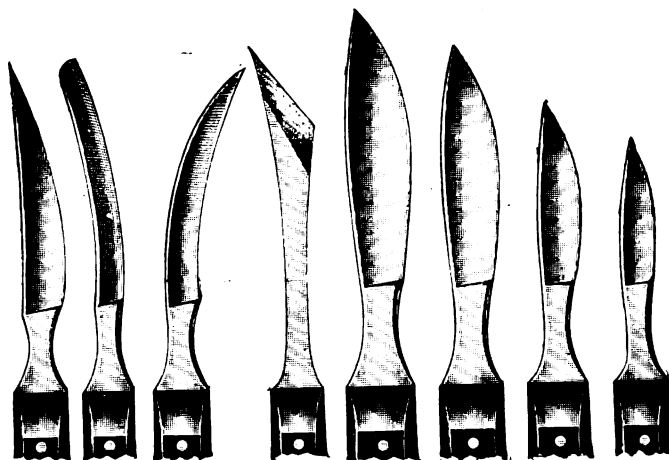


B1745.

- *B1744. **Dishes**, according to Stender, of clear white glass, with top surface ground air-tight into a groove in the cover, **genuine Stender make**.
 Diameter, 4 5 6 8 10 13 16 cm.
 a) Low form, height, 1½ 2 2½ 3 4 5 6 cm.
 b) High form, height, 9 9 10 12 14 18 cm.
 Price, \$.18 .20 .25 .30 .35 .60 .75
- Numbering of covers and jars of above, additional, per 100, \$1.00
- *B1745. **Dishes**, of clear white glass, with loosely fitting cover.
 Diameter, 50 60 80 100 mm.
 Price, .20 .25 .35 .50 each.
- B1746. **Dishes**, as above, cover ground on tight.
 Diameter, 50 60 80 100 mm.
 Price, .40 .50 .65 .75 each.

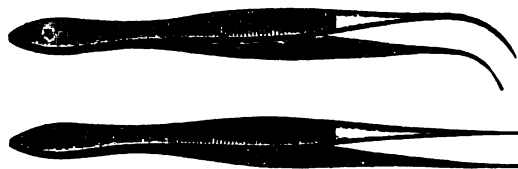
GENERAL LABORATORY APPARATUS

DISSECTING INSTRUMENTS



B1747. B1748. B1749. B1750. B1751. B1752. B1753. B1754.

*B1747.	Dissecting Knife,	Best ***	Steel, ebony handle, each,	\$.35
*B1748.	Dissecting Knife,	Best ***	" " " "	.35
*B1749.	Dissecting Knife,	Best ***	" " " "	.35
*B1750.	Dissecting Knife,	Best ***	" " " "	.35
*B1751.	Dissecting Scalpel,	Best ***	" " " "	.35
*B1752.	Dissecting Scalpel,	Best ***	" " " "	.30
*B1753.	Dissecting Scalpel,	Best ***	" " " "	.30
*B1754.	Dissecting Scalpel,	Best ***	" " " "	.30

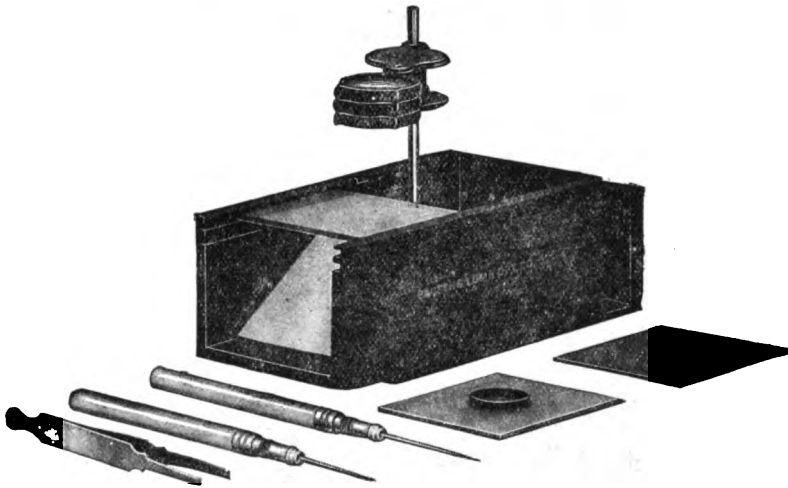


B1755-1757.

*B1755.	Dissecting Forceps,	best quality steel, fine curved serrated points, corrugated handle, heavily nickel plated,	\$.50
*B1756.	Dissecting Forceps,	as above, with straight points,	.40
*B1757.	Dissecting Forceps,	as above, without serrated points,	.35
B1758.	Dissecting Forceps,	best quality steel, medium heavy serrated points, and corrugated handle, heavily nickel plated,	.40
B1759.	Dissecting Forceps,	best quality steel, heavy serrated points, and corrugated handle, heavily nickel plated,	.40
B1760.	Dissecting Forceps,	as above, with wider blades,	.40
B1761.	Dissecting Forceps,	so-called "P. R." fine points, heavily nickeled, plain handle,	.25

GENERAL LABORATORY APPARATUS

DISSECTING INSTRUMENTS

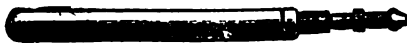


B1762.

- *B1762 **Dissecting Microscope.** The lenses may be used either singly or together, are adjustable for focus on the metal post, and can be used as a hand magnifier also. They give a range of power of from five to twenty diameters. Two needle holders with a straight and a bent needle, one pair of forceps, a metal plate with one black and one white side, a stage with cell besides the plain glass stage are included. The mirror rests in a groove in one end of the case at the proper angle. All the accessories are contained in the case when closed, and the whole may be conveniently carried in the pocket.

With one lens, \$1.00. With two lenses, \$1.25.

With three lenses, - - - - - \$1.50



B1764.



B1766.

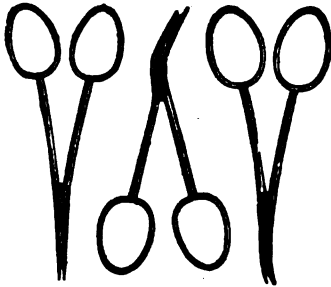


B1763.

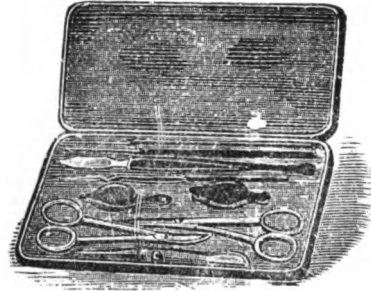
- | | | |
|---------|---|------|
| *B1763. | Dissecting Needle Box , for sterilizing dissecting needles; round form, - - - - - | 1.50 |
| *B1764. | Dissecting Needle Holder , of bone, holding any size of needle, - - - - - each, | .10 |
| B1765. | Dissecting Needle Holder , as above, with four needles, | .15 |
| *B1766. | Dissecting Needle Holder , of bone, extra fine quality, with adjustable clamp, - - - - - | .25 |
| B1767. | Dissecting Needle Holder , as above, with four needles, | .30 |
| B1768. | Dissecting Needles , assorted, dozen, \$.08; gross, | .75 |
| B1769. | Dissecting Needles , of platinum wire, 4 cm. long, fused in glass rods, - - - - - | .35 |
| B1770. | Dissecting Needles , of platinum wire, 8 cm. long, fused in glass rods, - - - - - | .65 |

GENERAL LABORATORY APPARATUS

DISSECTING INSTRUMENTS



B1771. B1772. B1773.



B1778.

- | | | |
|----------|--|--------|
| *B1771. | Dissecting Scissors, finest quality, fine points, straight, heavily nickel plated, - - - - - | \$.50 |
| *B1772. | Dissecting Scissors, finest quality, fine points, curved sideways, heavily nickel plated, - - - - - | .65 |
| *B1773. | Dissecting Scissors, finest quality, fine points, curved upward, heavily nickel plated, - - - - - | .65 |
| B1774. | Dissecting Scissors, finest quality, medium fine points, straight, heavily nickel plated, - - - - - | .35 |
| B1775. | Dissecting Scissors, finest quality, medium fine points, curved upward, heavily nickel plated, - - - - - | .50 |
| B1776. | Dissecting Scissors, good quality, heavy, - - - - - | .25 |
| B1777. | Dissecting Instrument Set, in morocco leather case; containing one pair of forceps, one pair of scissors, dissecting knife, needle holder; with needles, and lense, | 5.00 |
| *B1778. | Dissecting Instrument Set, larger, with two lenses, | 7.00 |
| — B1779. | Dissecting Instrument Set, as arranged by Dr. W. H. Birchmore, - - - - - | 15.00 |

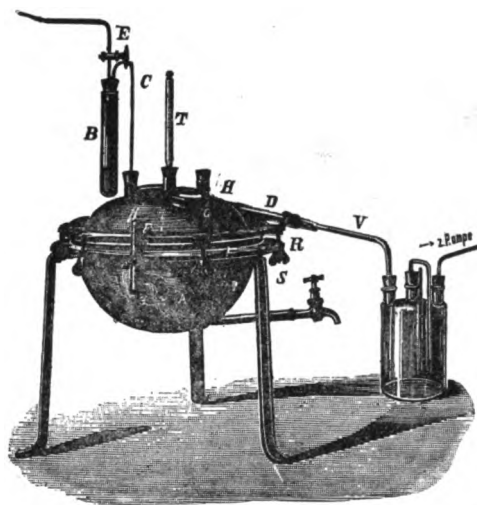
2 Pairs Forceps, fine, straight.
 2 " " " curved.
 1 " " medium heavy, straight
 1 " " bent blades.
 1 " " straight blades.
 1 " " self closing.
 1 " " with lock.
 1 Scalpel.
 1 "
 1 "
 2 Sets Needles.

2 Handles for the Needles.
 1 Pair Scissors.
 1 " "
 1 " "
 1 " "
 1 " "
 2 Flexible Silver Probes.
 1 Silver Director.
 1 Injection Syringe.
 12 inches Platinum Wire, medium.

The whole is packed in a leather case, and contains *every* tool required for any form of investigation with the microscope, except section cutting, but including pathology and bacteriology.

GENERAL LABORATORY APPARATUS

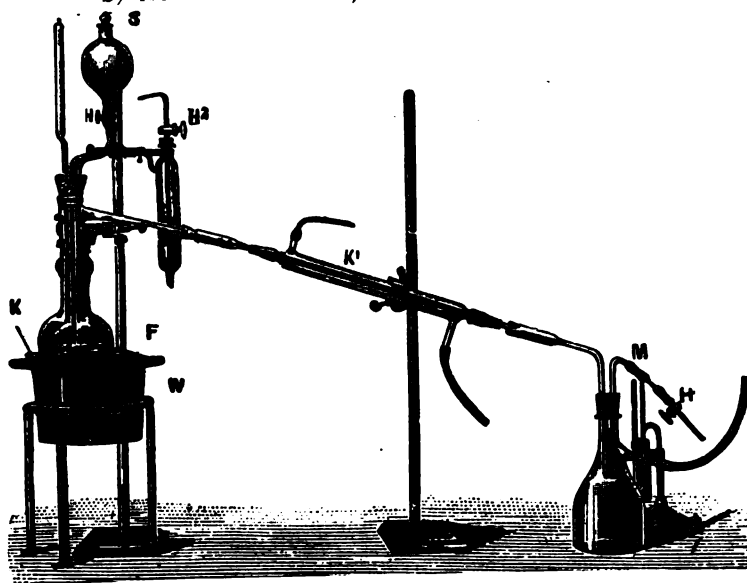
DISTILLING APPARATUS



B1780.

○*B1780. **Distilling Apparatus**, Brieger's Vacuum, for distilling and evaporating organic substances, toxines, ptomains, etc., which decompose easily or for distilling at higher temperatures,

- | | | | | | | |
|------------------------|---|---|---|---|---|-------------|
| a) for 1 Liter fluid, | - | - | - | - | - | - Δ\$90.00 |
| b) for 3 Liters fluid, | - | - | - | - | - | - Δ\$125.00 |

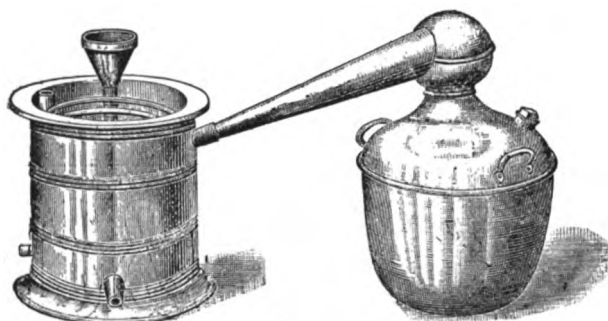


B1781.

○*B1781. **Distilling Apparatus**, Proskauer's latest construction, for distilling in vacuum or evaporating organic substances, which decompose easily; specially adapted for chemical and bacteriological work. Price, - - Δ\$30.00

GENERAL LABORATORY APPARATUS

DISTILLING APPARATUS

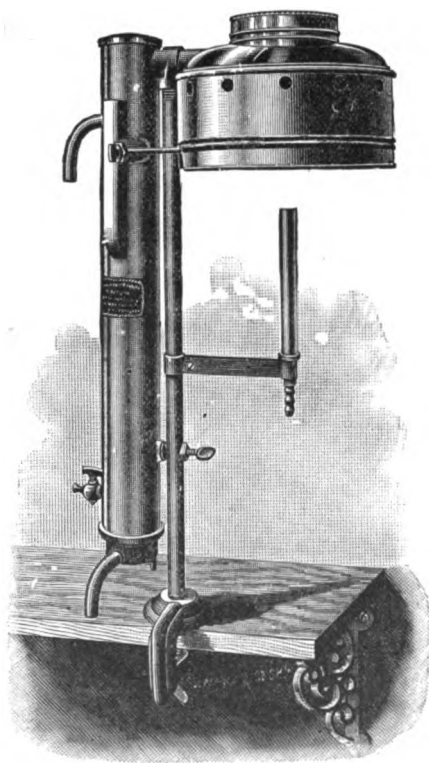


B1782.

- *B1782. **Distilling Apparatus**, for water, consisting of a heavy, tin-lined copper still, with movable head, connected with pure block-tin condensing worm, enclosed in zinc vessel, with proper inlets and outlets:

Capacity,	2	4	8	12	20	Liters.
Price,	\$8.00	10.00	12.50	15.00	20.00	each.

- *B1783. **Distilling Apparatus, James' Automatic Water Still.** Convenient and economical; self-regulating, does not require attention when in use and is easily cleaned. The retort has a well fitted cap which can be removed to admit the hand. The water supply pipe to the retort is provided with a screw cap at the elbow, which allows both tubes to be cleaned. The inner tube of the condenser can be taken out by unscrewing same, making all parts of the apparatus accessible. The retort and condenser revolve on the iron support and any scale or deposit may be removed without unfastening the clamp. It is well made of heavy copper, tin-lined throughout. The still is so arranged that the water in the retort is maintained at a constant level. The quantity produced exceeds 2 liter per hour. Price,



B1783.

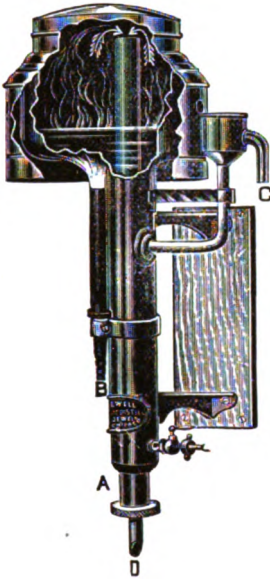
If fitted with burner for liquid
gasolene, - - - - -

\$15.00

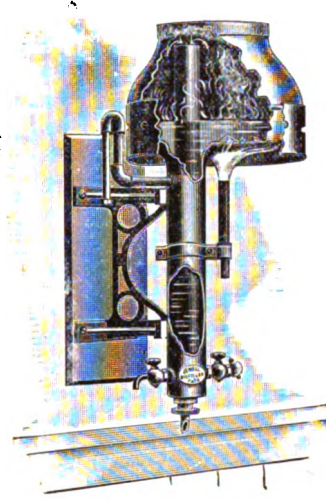
20.00

GENERAL LABORATORY APPARATUS

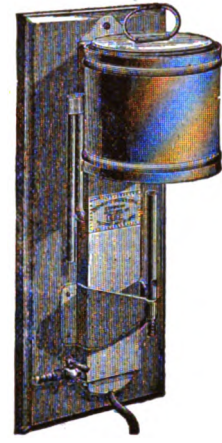
DISTILLING APPARATUS



B1785.



B1784.



B1787.

- *B1784. **Distilling Apparatus**, for water, "**Jewell's Automatic Still**," for gas.

Size No. 3 produces 2 Liters ($\frac{1}{2}$ gallon) per hour. The retort and condenser are combined in one iron casing; the condensing tube is straight and of double tin-lined copper. Price, - - - - -

\$15.00

- *B1785. Size No. 4 produces 2 Liters ($\frac{1}{2}$ gallon) per hour and is made of polished copper and brass throughout and nickelplated. Price, - - - - -

24.00

With each Still is furnished a block-tin connection pipe and a bracket or shelf, which can be screwed to the wall at any elevation desired.

- B1786. Size No. 2 produces 4 Liters (1 gallon) per hour.

This apparatus is very substantially built and should last for years. All parts are accessible and easily gotten at.

These Stills are in use in very many laboratories and institutions and give entire satisfaction. Price, -

45.00

For prices of larger sizes of Jewell Stills see Special Circular.

- *B1787. **Distilling Apparatus**, for water, "**Domestic Water Still**," working absolutely **automatically** with a gas burner.

Size A produces 50 Liters (12 gallons) of distilled water in 24 hours. Price, - - - - -

\$15.00

Size B produces 100 Liters (24 gallons) of distilled water in 24 hours. Price, - - - - -

25.00

GENERAL LABORATORY APPARATUS



B1788.



B1789.



B1790.



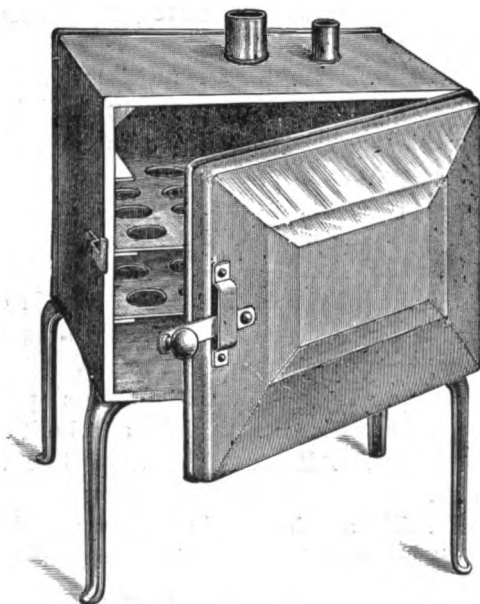
B1791.



B1792.

- | | | |
|---------|--|--------|
| *B1788. | Dropping Bottle , with pipette stopper and rubber top,
15 ccm., 30 ccm., or 50 ccm., - - - | \$.25 |
| *B1789. | Dropping Bottle , with pipette stopper and perforated
top, 15 ccm., 30 ccm., or 50 ccm., - - - | .30 |
| *B1790. | Dropping Bottle , with pipette stopper and rubber bulb,
15 ccm., 30 ccm., or 50 ccm., - - - | .22 |
| *B1791. | Dropping Bottle , with grooved stopper and neck,
Patent T-K, 15 ccm., 30 ccm., or 50 ccm., - - - | .30 |
| *B1792. | Dropping Bottle , with grooved stopper and perforated
neck, 15 ccm., 30 ccm., or 50 ccm., - - - | .18 |

DRYING OVENS

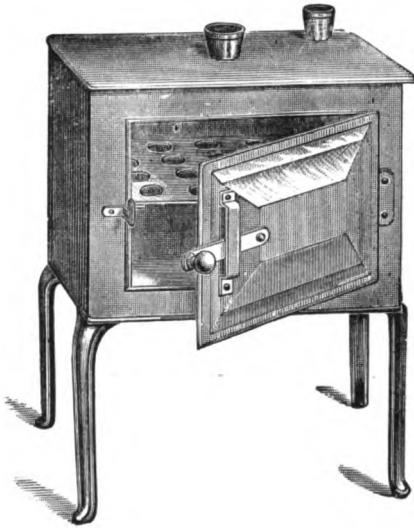


B1793.

- *B1793. **Drying Oven**, of polished copper, single wall, on iron stand with setscrew, with extra sheet-iron bottom, with tubulations for thermometer and gas regulator and one to two removable shelves.
- | | | | |
|---------------------|--------|-------|-----------|
| Outside dimensions, | 15×20 | 20×25 | 25×30 cm. |
| Price, | \$4.50 | 6 50 | 8.50 |

GENERAL LABORATORY APPARATUS

DRYING OVENS

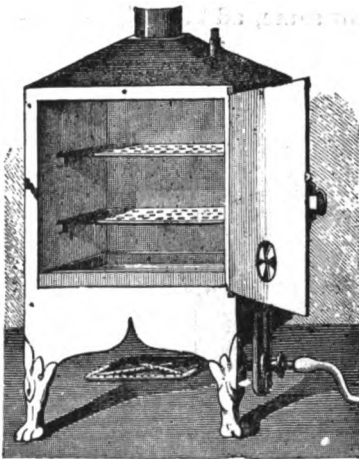


B1794.

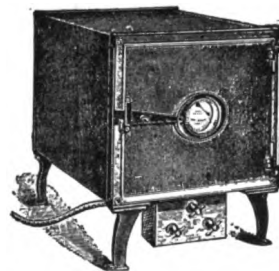


B1795.

- *B1794. **Drying Oven**, of copper, B1793 with double wall.
 Outside dimensions, 15×20 20×25 25×30 cm.
 Price, \$7.00 9.00 12.50
- *B1795. **Drying Oven**, of copper, as above, double wall, with water-bath top, and set of copper rings.
 Outside dimensions, 15×20 20×25 25×30 cm.
 Price, \$8.00 10.00 13.00



B1796.

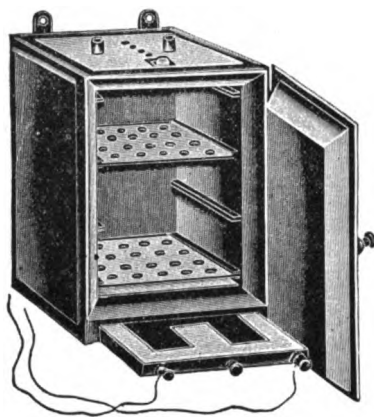


B1797.

- *B1796. **Drying Oven**, Wiesnegg's, iron, double wall, porcelain-lined, with glass door, with adjustable gas burner and two removable, perforated porcelain shelves.
 Small size, 29×24×25 cm. deep inside, - - \$71.50
 Large size, 40×31×30 cm. deep inside, - - Δ 93.00
- *B1797. **Drying Oven**, electrically heated, provided with thermometer and arrangement for three heats, inside space 30×35×40 cm., - - - - \$60.00

GENERAL LABORATORY APPARATUS

DRYING OVENS

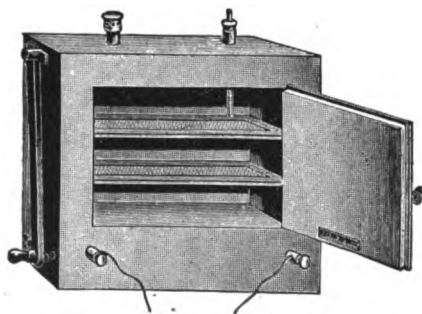


B1798.

- *B1798. **Drying Oven, electrically heated by Kryptol.** The Kryptol mass is filled into a slide drawer at the bottom of oven. Rheostat unnecessary. This oven has two perforated shelves and two hangers; top with slide ventilator and two tabulations, asbestos covered and double walled. Size 24×18×16 cm.

Made of iron, - - - -	- Δ \$30.00
○Made of copper, - - - -	42.50
Iron support for same, additional, - -	2.50

For other sizes and different forms, see Special Circular.



B1799.

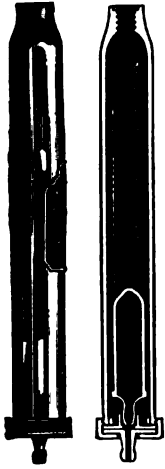
- *B1799. **Drying Oven, electrically heated with rheostat attached.** The oven is heated by wires, closely and evenly surrounding the working space. With two perforated, removable shelves, two tubulations, and air ventilator. It is double walled and asbestos covered.

Height of working space,	20	20	25 cm.
Width " " "	20	25	40 cm.
Depth " " "	20	15	25 cm.
Made of leaded Russia iron, Δ	\$55.00	\$50.00	\$110.00
Made of heavy copper, Δ	65.00	60.00	125.00

E. & A. ELECTRIC FURNACES. See General Catalog and Special List.

GENERAL LABORATORY APPARATUS

FILTERING APPARATUS



B1800 No. 1.



1



2



3

Cocks for Suspended Filters.

B1800.



B1800 No. 3.

○*B1800. **Filter**, Pasteur-Chamberland's germ-proof Water Filter.

Style "Suspended" No. 1, nickeled,
1 tube, 12 inches high, - - \$8.00

Style "Suspended" No. 3, nickeled,
3 tubes, 13 inches high, - - 20.00

Suspended Filter Cocks **extra**:

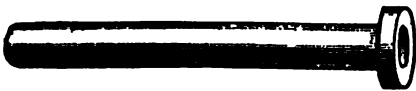
No. 1, or Pet, nickel-plated, - - - - \$1.00

No. 2, or Union Connection, nickel-plated, - - 3.00

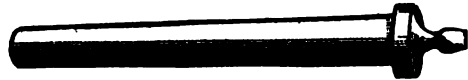
No. 3, or Bent Nose Filler, nickel-plated, - - 2.00

By the use of the Union Connection with the Filter, unfiltered water can be drawn when desired.

Any other style of Pasteur-Chamberland's Filters furnished, and prices given upon application.



B1802-B1803.



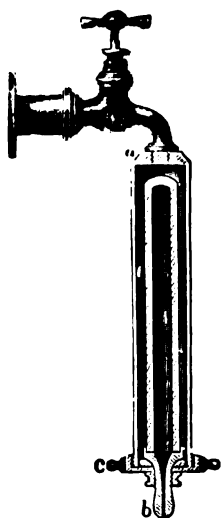
B1804-B1805.

- B1801. **Filter Bougie**, small pencil size, 15c.; large, - \$.20
- *B1802. **Filter Bougie**, Pasteur-Chamberland. Open top,
Royal Berlin porcelain, - - - - .75
- *B1803. **Filter Bougie**, Pasteur-Chamberland. Open top,
glazed flange, German make, - - - - .65
- *B1804. **Filter Bougie**, Pasteur-Chamberland, with glazed
top, German make, - - - - .75
- *B1805. **Filter Bougie**, Pasteur-Chamberland, with glazed
top, original French make, B or F, for bacteriological
or general use, - - - - 1.25

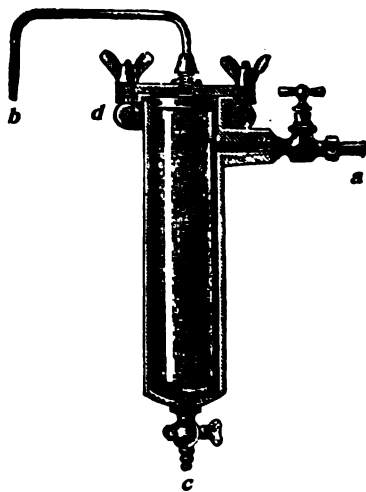
See also B1499.

GENERAL LABORATORY APPARATUS

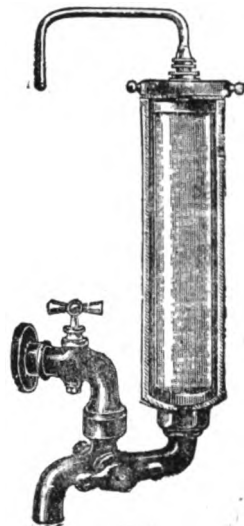
FILTERING APPARATUS



B1806.



B1808.



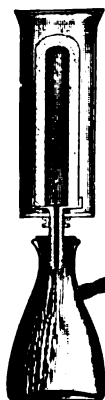
B1809.

Filters, Berkefeld's germ-proof House-Filters. This filter is neatly nickel-plated and especially designed to be screwed to any regular $\frac{3}{4}$ inch hose bib-faucet of the main supply pipe at "a," as shown in cut. When the water is turned on, it is forced through the walls of the filtering cylinder within, leaving all impurities, even **Typhoid** and **Cholera Bacilli** and other objectionable matter on the surface of the same, while the filtered water runs off through the outlet "b". During the first ten minutes, the filtered water may be a little cloudy, owing to the powder or dust which is caused in boring the cylinder; after this is out, however, the filtrate will be as clear as crystal.

- | | |
|--|--------------|
| ○*B1806. No. 1. Gives one gallon of filtered water in 3 to 4 minutes by ordinary pressure of 40 pounds; length, 9 inches; diameter, $1\frac{1}{2}$ inches, - - - - - | \$3.50 |
| ○ B1807. No. 2. Same as No. 1, but shorter and thicker; length, 6 inches; diameter, $2\frac{1}{4}$ inches, - - - - - | 5.00 |
| ○*B1808. No. 3. Larger filter; height, 18 inches; diameter, 3 inches, giving a gallon of filtered water in 2 minutes, at 40 pounds pressure; case of cast iron, bronzed and enameled inside. The water from the main pipe enters the filter at, "a", as shown in cut, and after being filtered, runs off through pipe "b"; the outlet for the unfiltered water and waste is "c". To clean the cylinder, remove top "d", which is fastened by two swivels as shown above, - - - - - | Price, 12.00 |
| ○*B1809. No. 4. Nickel-plated case similar to No. 2, $11\frac{1}{2}$ inches high, $2\frac{1}{2}$ inches diameter, gives 1 gallon of filtered water in 2 minutes, at 40 pounds pressure. It can be attached to faucet on supply pipe in the same manner as filters 1 and 2, so that filtration is downward, or in connection with the two-way cock, as shown in cut, so that the filtration is upward. | |
| Price for filter only, - - - - - | 8.00 |
| With a two-way cock and outlet pipe, - - - - - | 10.00 |

GENERAL LABORATORY APPARATUS

FILTERING APPARATUS



B1810.



B1812,



B1811.

○*B1810. **Filter,** Berkefeld's Medical Laboratory and Experimental Filters.

For laboratory and medical purposes these filters are eminently suitable, sterilizing all liquids, and completely filtering beef tea, infusions, etc., containing bacteria. They yield a clear blood serum, free of microbes, and from milk a perfectly clear and colorless milk serum free from fat.

Glass filter mantel and filtering cylinder only, at the following prices:

Filter Mantel No. I.	14 inches high × 4 inches wide,	
	Cylinder 10 inches long × 2 inches wide, - - -	\$5.25
Filter Mantel No. II.	11 inches high × 2½ inches wide,	
	Cylinder 8 inches long × 1 inch wide, - - -	4.25
Filter Mantel No. III.	4 inches high × ¾ inch wide,	
	Cylinder 2½ inches long × ⅝ inch wide, - - -	2.00
New Cylinders for F. M. I,	- - - - -	3.50
New Cylinders for F. M. II,	- - - - -	3.00
New Cylinders for F. M. III,	- - - - -	1.25

○*B1811. **Filter, Berkefeld's Drop Filter.** Water is poured into top vessel and drips through the filter cylinder into the pitcher. The apparatus is of glass. Top vessel can be lifted off and the filtered water poured from pitcher into a tumbler. Filter cylinder has porcelain head piece with metal threaded screw by which it is fastened into the aperture at bottom of glass vessel.

Price complete, - - - - -	6.00
New Filter Cylinder (No. 10) for above, - - -	2.50

○*B1812. **Filter Bougies,** Nordtmeyer-Berkefeld.

No. 1.	6 inches long, 1¼ inch diameter, - - -	1.50
No. 2.	3½ inches long, 2 inches diameter, - - -	1.50
No. 3.	10 inches long, 2 inches diameter, - - -	2.50

GENERAL LABORATORY APPARATUS

FILTERING APPARATUS



B1813.



B1814.



B1815.

- *B1813. **Filter Flasks** of heavy white glass, Bunsen's shape.
- | | | | |
|----------|--------|-----|----------|
| Capacity | 250 | 500 | 1000 CC. |
| Price, | \$.35 | .45 | .60 |

- *B1814. **Filter Flasks**, Erlenmeyer shape, Price same as No. B1813.

- *B1815 **Filter Flasks**, Caraffe shape. Prices same as No. B1813.



B1816.



B1817.



B1818.

- *B1816. **Filter Flasks**, with ground-in funnel.
- | | | | |
|-----------|--------|------|----------|
| Capacity, | 250 | 500 | 1000 CC. |
| Price, | \$1.50 | 2.00 | 2.50 |

- *B1817. **Filter Flasks**, Wahl's, with stopcock on suction tube, for filtering slowly running liquids.

The glass tube shown in sketch is closed at one end and is empty at a perfect vacuum, but fills with liquid, as soon as air enters.

Capacity,	1	2	Liters.
Price, without funnel,	\$2.00	2.75	

- *B1818. **Filter Flasks**, Walther's, for use with rubber rings, instead of the more expensive rubber stoppers.

Capacity,	250	500	1000 CC.
Price, without funnel,	\$.60	.75	1.00

Rubber Rings for same, each, 10c.; dozen, \$1.00

GENERAL LABORATORY APPARATUS

FILTERING APPARATUS



B1820.



B1821.

- B1819. **Filterpaper**, E. & A. white, quick filtering, smooth or embossed, in sheets, size 50×50 cm., quire, \$.30; ream, \$4.80
- *B1820. **Filterpaper**, E. & A. white, cut round, in packages of 100.
 Diameter, 7 10 13 15 19 25 33 40 45 50 cm.
 Price per pack, .08 .13 .18 .22 .25 .35 .56 .72 .96 1.10
- B1821. **Filterpaper**, C. S. & S. No. 595, a good light paper, free from Chlorine, tasteless and made of the best material, in sheets 47×54 cm., quire, .60; - ream, 10.00
- *B1822. **Filterpaper**, C. S. & S. No. 595, cut round, in packages of 100.
 Diameter, 5.5 7 9 11 12.5 15 18.5 24 27 32 38.5 cm.
 Price per pack, .12 .15 .20 .23 .25 .30 .40 .60 .80 1.00 1.25
- B1823. **Filterpaper**, C. S. & S. No. 597, a much heavier paper, filtering quickly, sheets 58×58 cm., quire, \$1.00; ream, 18.00
- B1824. **Filterpaper**, C. S. & S. No. 597, cut round, in packages of 100.
 Diameter, 5.5 7 9 11 12.5 15 18.5 24 27 32 38.5 50 cm.
 Price per pack, .15 .20 .25 .30 .35 .40 .55 .75 .90 1.15 1.50 2.30
- B1825. **Filterpaper**, C. S. & S. No. 588, cut round and folded.
 Diameter, 12.5 15 18.5 24 32 38.5 50 cm.
 Price per box of 100, each, .35 .40 .50 .75 1.25 1.50 2.25

Special Filtering papers are made by Carl Schleicher & Schuell for milk, fat and blood analysis.

Ask for Special List with samples of C. S. & S. Filterpapers.

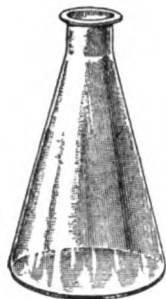
For other Filterpapers see General Catalogue.

B1826. **Filter pipette**, according to Babes, see page 55.

GENERAL LABORATORY APPARATUS



B1837-1838.



B1839.



B1840.



B1841.

*B1837. **Flasks**, best Bohemian, flat bottom.

Capacity,	125	250	500	1000	CC.
Price,	.12	.18	.25	.35	

*B1838. **Flasks**, best German, flat bottom.

Capacity,	125	250	500	1000	CC.
Price,	.08	.10	.15	.20	

*B1839. **Flasks**, best Bohemian, Erlenmeyer form.

Capacity,	125	250	500	1000	CC.
Price,	.12	.18	.25	.35	

*B1840. **Flasks**, Volumetric, plain, with one mark.

Capacity,	50	100	250	500	1000	CC.
Price,	\$.25	.30	.40	.60	.75	

*B1841. **Flasks**, Volumetric, stoppered, with one mark.

Capacity,	50	100	250	500	1000	CC.
Price,	\$.30	.35	.60	.75	.90	

*B1842. **Flasks** for transportation and storing of **liquid air**, so-called Dewarbulbs, made by R. Burger, double-walled, evacuated.

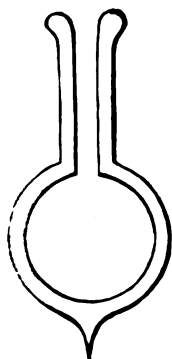
Capacity,	$\frac{1}{4}$	$\frac{1}{2}$	1	2	4	liters.
Silvered,	\$3.00	4.50	7.00	12.50	17.50	
Unsilvered,	\$2.00	3.50	6.00			

○*B1843. **Carrying and Shipping Baskets** for Dewarbulbs, for flasks of 1 2 4 liter capacity.
\$7.50 8.50 10.00

These carrying baskets are made of a stout wire frame with thick felt bottom and thick felt lining of the shape of the flask which again is strengthened by wires. It is provided with a felt stopper which is removable so as to avoid taking out the flask while being filled or emptied; it has a lock and key for safe keeping.

Besides the above a number of other shapes of liquid air vessels will be imported to order.

Ask for Special List.



B1842.



B1843.

GENERAL LABORATORY APPARATUS



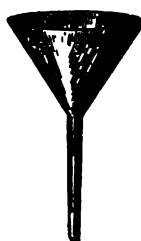
B1845.



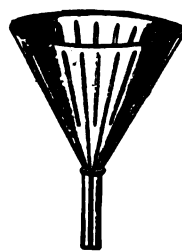
B1846.



B1847.



B1848.



B1849.

B1844. **Forceps**, plain, steel, 10 11 12 15 cm.
Price, \$.08 .10 .12 .18

—*B1845. **Forceps**, brass, bent, - - - - - \$.20

*B1846. **Forceps**, brass, bent, with ivory tips, - - - .70

For Cover Glass Forceps, see pages 40—41.

—*B1847. **Funnels**, of agate ware.

Capacity, 250 500 1000 2000 cc.
Price, \$.35 .40 .45 .55

*B1848. **Funnels**, of best German glass, 60° angle.

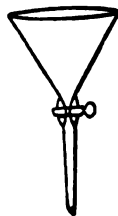
Diameter, 50 75 100 125 150 200 mm.
Price, \$.08 .10 .15 .20 .25 .45

*B1849. **Funnels**, of glass, ribbed, regular form.

Diameter, 10 12 15 20 cm.
Price, \$.12 .15 .20 .40



B1850.



B1851.



B1852.

*B1850. **Funnels**, of glass, latest improved form, with deep conical ribs, for quick filtering.

Diameter, 7 10 16 20 24 cm.
Price, \$.25 .35 .50 1.00 1.35

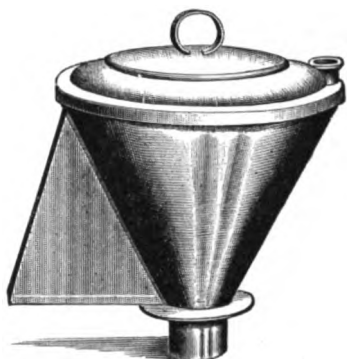
*B1851. **Funnels**, Separatory, of glass, open top.

Diameter, 10 15 20 24 cm.
Price, \$1.40 2.00 2.50 3.50

*B1852. **Funnels**, Separatory, of glass, globe shape.

Capacity, 125 250 500 1000 2000 cc.
Price, \$1.20 1.50 2.00 2.50 3.00

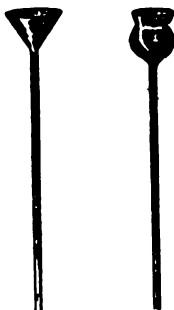
GENERAL LABORATORY APPARATUS



B1853.

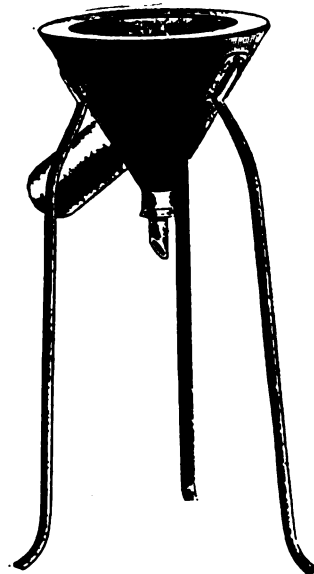


B1857.



B1858.

B1859.



B1855.

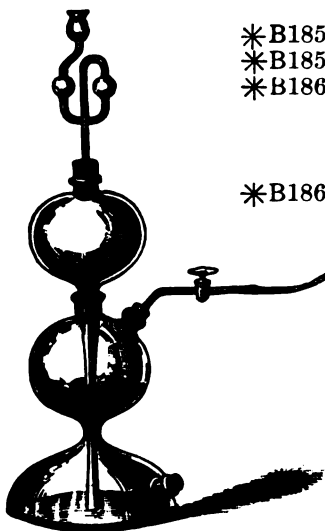
- | | | |
|----------|--|--------|
| ○*B1853. | Funnel, Plantamour's hot water filter, double wall, of tin, - - - - - | \$1 50 |
| ○ B1854. | Funnel, Plantamour's hot water filter, double wall, of copper, - - - - - | 3.00 |
| ○*B1855. | Funnel, Koch's hot water filter, of copper, on three removable legs, single wall, without glass funnel, - | 3.50 |
| ○*B1856. | Funnel, Koch's hot water filter, as above, but double wall, - - - - - | 5.00 |
| ○*B1857. | Funnel, or steam-filter, for use on retort stand, with steam inlet and outlet, for gelatine and agar-agar filtration and for easily inflammable substances, including glass funnel, - - - - - | 4.00 |

Funnel Tubes.

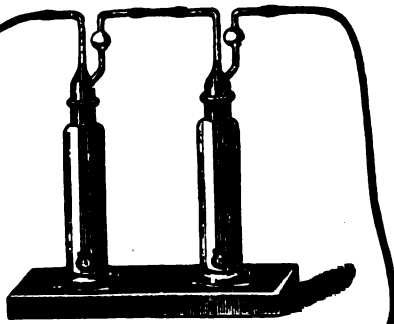
- | | | |
|---------|--|-----|
| *B1858. | Conical top, stout glass, 20 in. each, | .22 |
| *B1859. | Thistle top, light glass, 20 in. each, | .20 |

- *B1860. **Gas Generator,** Kipp's, for generating gas in the laboratory.
Capacity, $\frac{1}{2}$ 1 2 Liters.
Price, \$3 50 4.50 5.75

- | | | |
|---------|---|------|
| *B1861. | Two washbottles, for ditto, additional, - - - - - | 4.00 |
|---------|---|------|



B1860



B1861.

GENERAL LABORATORY APPARATUS

We beg to draw the attention of the Bacteriologists, Physicians and Chemists to the fact that we have increased our facilities for

GLASS BLOWING

to such an extent, that we are able to produce any form of complicated glass apparatus, as perfectly and accurately as the best establishments in Europe and at about the same price.

B1862. **Glass Plates**, ground rough on one side, for covering dishes, specimen jars, etc.

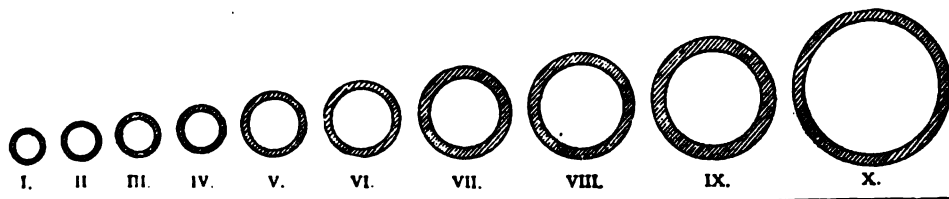
Size,	5	8	10	12	15	20	25 cm. square.
Price,	3	5	6	8	10	15	25 cents.

B1863. **Glass Plates**, as above, round, edges ground.

Diameter,	5	8	10	12	15	18	20 cm.
Price,	10	15	20	25	30	35	40 cents.

B1864. **Glass Rods**, of German glass, 2 to 25 mm. dia., lb., \$.50

B1865. **Glass Stirrers**, of German glass, rounded at one end, pointed at the other, any length and diameter, lb., .60

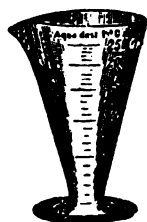


B1866.

*B1866. **Glass Tubing**, of best soft German glass, for general laboratory work, - - - lb., \$.50

— B1867. **Glass Wool**, of Bohemian glass, for filtering purposes.

Coarse,	-	-	oz., 40c.	-	-	-	lb., 5.00
Fine,	-	-	oz., 60c.	-	-	-	lb., 8.00



B1868.



B1869.

*B1868. **Graduates**, German, conical, on foot.

Capacity,	25	50	100	250	500	1000 cc.
Price,	\$.35	.40	.50	.75	1.00	1.65

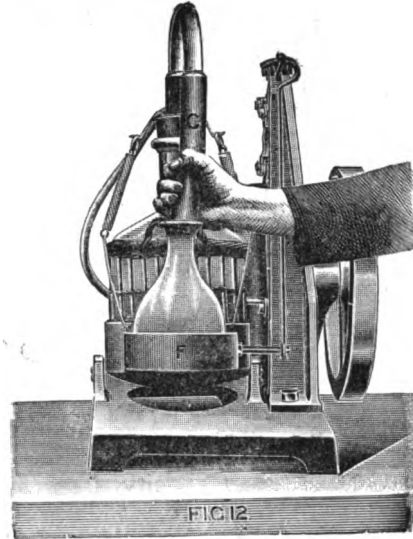
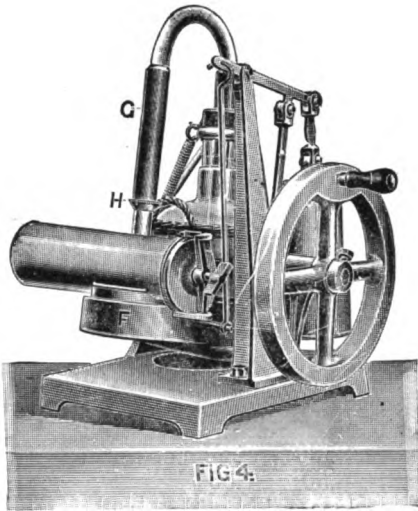
*B1869. **Graduates**, on foot, in ounces.

Capacity,	1	2	4	6	8	12	16	32 ounces
Price,	\$.15	.20	.25	.30	.35	.45	.55	.90

B1870. **Graduates**, on foot, in grammes on one side and ounces on the other.

1	2	4	8	16	32 ounces.
30	50	100	250	500	1000 grammes.
.40	.50	.75	1.00	1.50	3.00

GENERAL LABORATORY APPARATUS



B1871.

- *B1871. **Ice Machine "Raplin."** The simplest and most reliable hand ice-machine in the market. Not dangerous. Will freeze a caraffe of water in three minutes, or make a block of about $1\frac{1}{4}$ lbs. ice in about twenty minutes, by simply turning handle. No expensive chemicals or freezing powders are required. The only expense is for a small quantity of ordinary sulphuric acid to absorb the vapor.

Price of machine, including caraffe and vessel for making block-ice,	-	-	-	-	-	-	-	\$90.00
Spare absorber for acid,	-	-	-	-	-	-	-	6.00

For other Ice Machines apply for Special List.



B1872

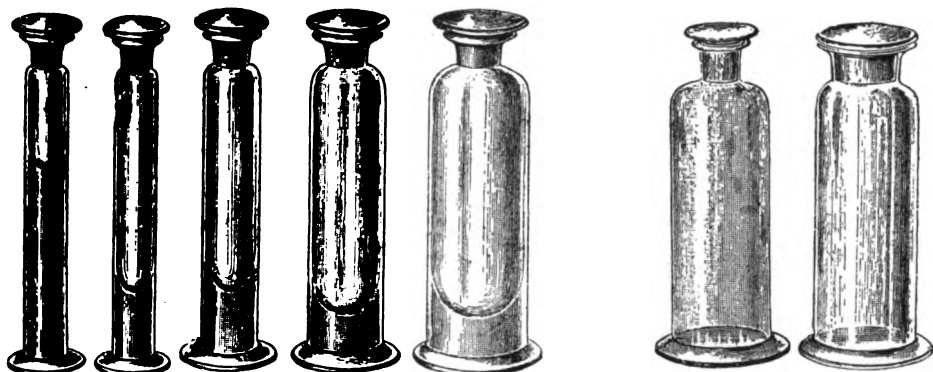


B1873.

- *B1872. **Jars, Specimen**, specially adapted for microscopic, biological and museum purposes; air-tight, can be easily cleaned.
- | | | | |
|--------------------------------|---|--------|--------|
| 35×40 mm., capacity 30 CC., | - | dozen, | \$.65 |
| 75×75 mm., capacity 200 CC., | - | " | .80 |
| 100×75 mm., capacity 300 CC., | - | " | 1.00 |
| 150×75 mm., capacity 500 CC., | - | " | 1.25 |
| 125×100 mm., capacity 700 CC., | - | " | 2.00 |
- 20 per cent. discount in Gross lots.

- *B1873. **Jars, Specimen**, with ground-in stoppers.
- | | | | |
|--------|-----|--------|-----------|
| Size, | 5×5 | 10×10 | 13×13 cm. |
| Price, | .70 | \$1.00 | 1.50 |

GENERAL LABORATORY APPARATUS



B1874.

B1875.

*B1874. **Jars, Specimen**, of heavy white glass, with glass-filling, all 145 mm. high.

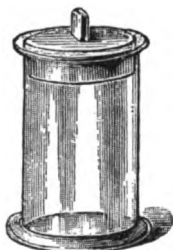
Capacity,	5	10	20	50	100	125 cc.
Price, \$	.35	.35	.35	.40	.50	.55

*B1875. **Jars, Specimen**, of heavy white glass, with wide or narrow neck, all 250 mm. high.

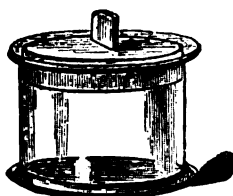
Capacity,	250	500	1000 cc.
Price, \$	.75	1.00	1.25



B1876.



B1877.



B1878.



B1879.

*B1876. **Jars, Specimen**, with overlapping covers.

Size,	15×8	10×10	20×13	15×15 cm. diameter.
Price, \$	.80	1.00	1.60	1.75
Size,	30×20	25×25	30×30	60×30 cm. diameter.
Price, \$	3.00	4.00	6.50	9.00

*B1877. **Jars, Specimen**, of fine white glass, with foot, rim and ground-in stopper, air-tight.

Size,	100×75	130×75	150×100	180×120 mm.
Price, \$	.50	.60	1.00	1.25

*B1878. **Jars, Specimen**, as above, wide form.

Size,	80×80	100×100	100×150	150×150 mm.
Price, \$	.50	.80	1.50	1.75
Size,	150×200	180×180	180×240	250×250 mm.
Price, \$	2.75	2.50	4.00	6.00

*B1879. **Jars, Specimen**, of best Bohemian glass, with air-tight ground-in glass stoppers, with hook.

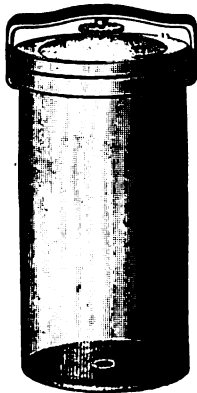
Size,	65×65	75×75	100×100	75×150 mm. high.
Price, \$	.40	.50	1.00	.75
Size,	110×150	150×75	200×250	mm. high.
Price, \$	1.25	1.50	5.00	

Other sizes imported to order.

GENERAL LABORATORY APPARATUS

—*B1880. **Jars, Specimen**, of improved style, without contraction at the neck, so that the width of the mouth is the same as the inside diameter of the body of the jar.

The contents are enclosed entirely in glass, with a thin rubber medium under the lid to make the jar air-tight. This lid is securely fastened down with a metallic clamp. On the under side of the lid are two glass rings, from which specimens may be suspended so that they will stay in any position.



B1880.

Width of Mouth.	Height without Lid.	Capacity, (approx.)	Each.
2 1/4 inches.....	4 inches.....	1/2 pint.....	\$.50
2 1/4 inches.....	6 inches.....	3/4 pint.....	.55
2 1/4 inches.....	8 inches.....	1 pint.....	.60
2 1/4 inches.....	12 inches.....	1 1/2 pints.....	.65
2 1/4 inches.....	18 inches.....	2 1/4 pints.....	.70
3 1/2 inches.....	6 inches.....	1 1/4 pints.....	.75
3 1/2 inches.....	8 inches.....	2 1/2 pints.....	.80
3 1/2 inches.....	12 inches.....	4 pints.....	.95
3 1/2 inches.....	18 inches.....	6 pints.....	1.10
5 inches.....	8 inches.....	2 3/4 quarts.....	1.40
5 inches.....	12 inches.....	4 quarts.....	1.65
5 inches.....	15 inches.....	.5 quarts.....	1.80
5 inches.....	18 inches.....	.6 quarts.....	1.90
6 1/4 inches.....	8 inches.....	1 gallon.....	1.85
6 1/4 inches.....	12 inches.....	1 1/2 gallons.....	2.00
7 3/8 inches.....	6 inches.....	1 1/8 gallons.....	2.60
7 3/8 inches.....	8 inches.....	1 1/2 gallons.....	2.80
7 3/8 inches.....	12 inches.....	2 1/4 gallons.....	3.20
7 3/8 inches.....	15 inches.....	2 3/4 gallons.....	3.50
7 3/8 inches.....	18 inches.....	3 1/2 gallons.....	3.75
7 3/8 inches.....	24 inches.....	4 1/2 gallons.....	4.30
7 3/8 inches.....	36 inches.....	7 gallons.....	5.60
11 1/2 inches.....	12 inches.....	4 3/4 gallons.....	6.65
11 1/2 inches.....	18 inches.....	7 1/4 gallons.....	8.40
11 1/2 inches.....	24 inches.....	10 gallons.....	10.50

—*B1881. **Jars, Specimen**, made of clearest flint glass, with mouths nearly as wide as the jars themselves, and glass stoppers carefully ground in.

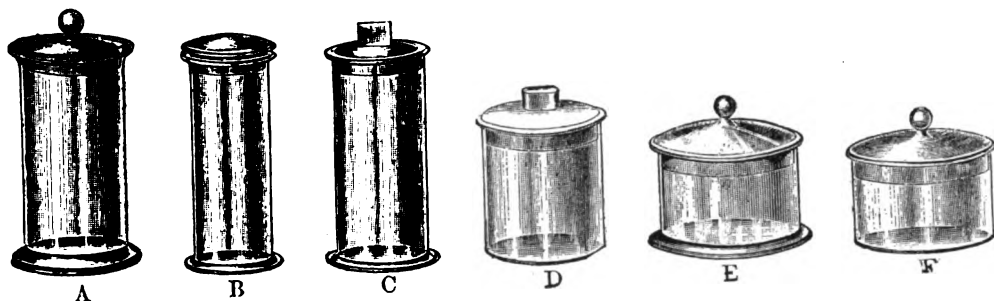
In ordering give diameter of body and height to shoulder.



B1881.

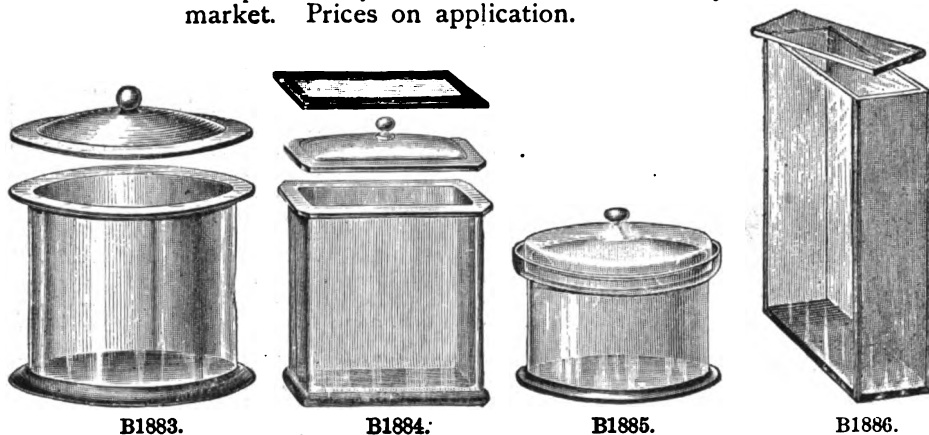
Diameter of Body.	Height to Shoulder.	Height to top of Stopper.	Width of Mouth.	Capacity to Neck.	Price per Dozen.	Price Each.
1 1/4 inches...	2 inches...	3 1/2 inches...	1 1/4 inches...	1 1/2 ounces...	\$3.10..	.20
1 1/4 inches...	3 inches...	4 1/2 inches...	1 1/4 inches...	2 1/2 ounces...	2.25..	.22
2 inches...	2 1/2 inches...	4 1/4 inches...	1 1/2 inches...	.3 ounces...	2.45..	.24
2 inches...	3 1/4 inches...	5 1/2 inches...	1 1/2 inches...	.5 ounces...	2.63..	.26
2 inches...	.5 inches...	6 3/4 inches...	1 1/2 inches...	.6 ounces...	2.95..	.28
2 1/2 inches...	3 1/2 inches...	5 1/2 inches...	2 inches...	.8 ounces...	3.15..	.30
2 1/2 inches...	.5 inches...	7 inches...	2 inches...	1.1 ounces...	3.50..	.35
2 1/2 inches...	.7 inches...	9 inches...	2 inches...	1.6 ounces...	3.85..	.38
3 inches...	.4 inches...	6 1/4 inches...	2 1/2 inches...	1.4 ounces...	4.00..	.40
3 inches...	.6 inches...	8 1/4 inches...	2 1/2 inches...	2.0 ounces...	4.55..	.45
3 inches...	.8 inches...	10 1/4 inches...	2 1/2 inches...	2.8 ounces...	5.40..	.50
3 3/4 inches...	.6 inches...	8 1/2 inches...	.3 inches...	2.9 ounces...	5.95..	.60
3 3/4 inches...	.8 inches...	10 1/2 inches...	.3 inches...	4.0 ounces...	7.35..	.70
3 3/4 inches...	1.0 inches...	12 1/2 inches...	.3 inches...	5.2 ounces...	8.75..	.85
4 1/2 inches...	.5 inches...	7 3/4 inches...	3 1/2 inches...	.38 ounces...	7.50..	.75
4 1/2 inches...	.8 inches...	10 3/4 inches...	3 1/2 inches...	.62 ounces...	9.45..	.95
4 1/2 inches...	1.2 inches...	14 1/4 inches...	3 1/2 inches...	.92 ounces...	11.00..	1.10
6 inches...	.7 inches...	10 inches...	.5 inches...	.98 ounces...	13.25..	1.30
6 inches...	1.0 inches...	13 inches...	.5 inches...	1.40 ounces...	17.50..	1.75
6 inches...	1.2 inches...	15 inches...	.5 inches...	1.68 ounces...	18.90..	1.90
6 inches...	1.5 inches...	18 inches...	.5 inches...	2.12 ounces...	21.70..	2.10

GENERAL LABORATORY APPARATUS



B1882.

- *B1882. **Jars, Specimen.** Styles A to F supplied in the sizes ranging from 5 cm. to 100 cm. height and 1 cm. to 33 cm. diameter. State letter and size wanted when ordering. These jars have air-tight ground stoppers or lids and are of the finest white glass. Without exception they are the best anatomical jars on the market. Prices on application.



B1883.

B1884.

B1885.

B1886.

- *B1883. **Jars, Specimen,** of finest white glass, on foot, lid cover with knob ground on a large broad rim; supplied in sizes from 8 cm. to 95 cm. high and 5 cm. to 30 cm. diameter. State sizes wanted; prices on application.
- *B1884. **Jars, Specimen,** of finest white glass, rectangular, on foot, with broad ground rim and ground on lid with knob; sizes from 6" high \times 5" wide \times 5 cm. deep to 45 \times 43 \times 12 cm.; prices on application.
- *B1885. **Jars, Specimen,** so-called "Brain cylinders," of heavy, white glass, with cover loosely fitting in a gutter, to be filled with paraffine, glycerine, etc., to make jar airtight; sizes from 15 \times 15 cm. to 30 \times 30 cm.; prices on application.
- *B1886. **Jars, Specimen,** perfectly rectangular, of heavy white glass, one of the broad sides finely ground and polished; with ground on plate glass; sizes from 10 high \times 5 wide \times 25 cm. deep to 42 \times 105 \times 75 cm.; prices on application.

B1882 to B1886 imported to order only. A few sizes are kept in stock.

GENERAL LABORATORY APPARATUS



B1887.



B1888.

- *B1887. **Lamps**, for Petroleum, of brass, nickel-plated, especially adapted for incubators, sterilizers, drying ovens, paraffine baths, etc.

Size I. for small apparatus, lasting 24 hours,	-	\$5.00
" II. for medium " " 24 "	-	7.00
" III. for large " " 12 "	-	10.00

- *B1888. **Lamp**, for alcohol, with 6 flames, on the principle of the Bunsen Burner, - - - - - 4.00

Levelling Tripod, for culture dishes, etc., see page 120.



B1889.



B1890.



B1891.



B1892.

- *B1889. **Lamps**, for alcohol, of glass, with side tubulus.

Capacity,	60	120	200	250	CC.
Price,	.38	.44	.50	.55	

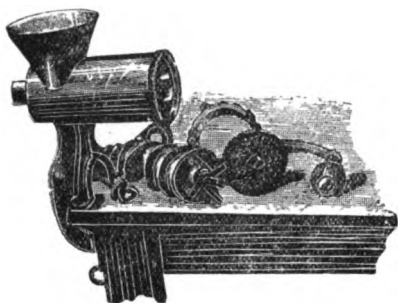
- *B1890. **Lenses**, Magnifying, in rubber case.

a) Single, 15 mm. dia., No. 101,	-	-	each,	\$.30
b) Double, 15, 18 mm. dia., No. 102,	-	-	"	.45
c) Triple, 12, 15, 18 mm. dia., No. 103,	-	-	"	.60

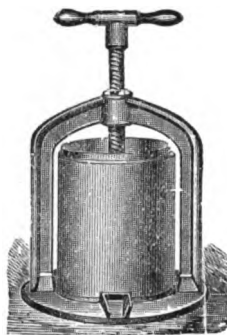
- *B1891. **Lens**, Magnifying, in brass tripod, for dissecting work, .50

- *B1892. **Lens**, Coddington's, very powerful, in brass case, with handle; small, \$1.00; large, - - - - - 1.80

GENERAL LABORATORY APPARATUS



B1893.



B1894.

—*B1893. **Meat Chopper**, for mincing meat for bouillon cultures and gelatine.

a) Weighs 2 Kilos; chops $\frac{1}{2}$ Kilo per minute,	-	\$1.50
b) Weighs $3\frac{1}{2}$ " " 1 " " "	-	2.50
c) Weighs $7\frac{1}{2}$ " " $1\frac{1}{2}$ " " "	-	4.50

—*B1894. **Meat Presses**, with perforated zinc cylinders.

Capacity,	1	2	4	8 Liters.
Price,	\$3.50	4.50	6.50	9.00

B1895. **Meat Squeezers**, small, to fasten to the table; made in two sizes; small, \$2.00; large, - - - - 3.50

—*B1896. **Mercury Air Pump**, Dr.

B. B. Boltwood's Automatic, the most simple, most compact and most effective pump on the market. See also page 6.

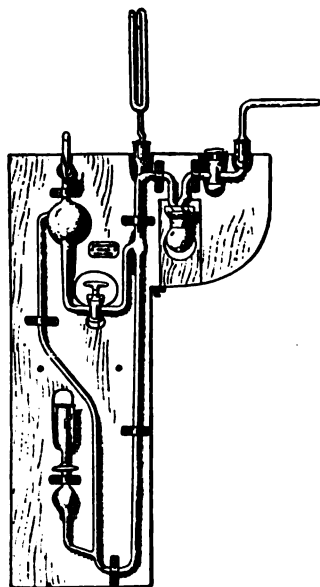
Pump, on polished mahogany support, - \$20.00

Pump, with Vacuum Gauge, - - - 23.00

Pump, with Vacuum Gauge and Drying Chamber, for P_2O_5 , - 25.00

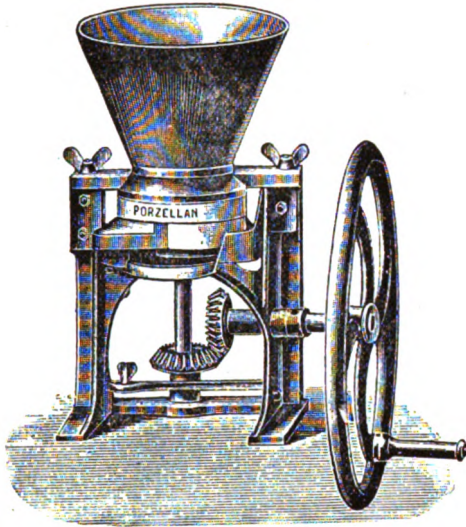
Glass Aspirator, for operating pump, - - 1.00

Brass Aspirator, for operating pump, - - 1.25

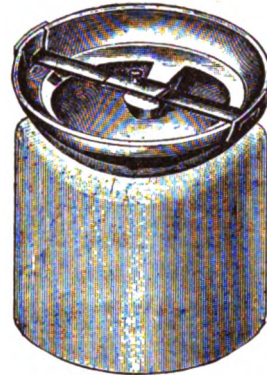


B1896.

GENERAL LABORATORY APPARATUS

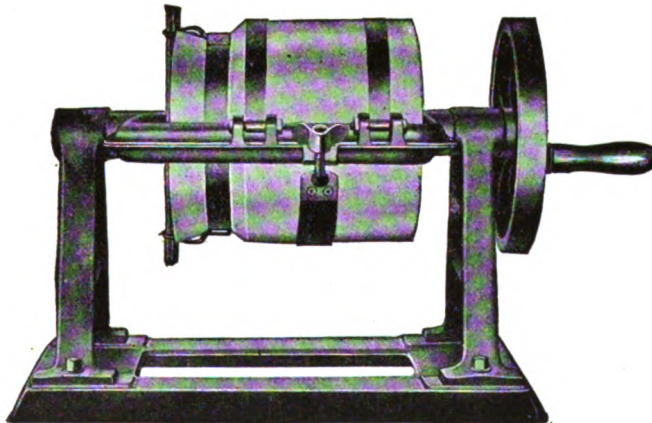


B1897.



B1899.

- *B1897. **Mills**, for grinding wet or dry substances for bacteriological or chemical purposes; with grinding parts of porcelain, acid proof.
- | | | | |
|--------|-------------------------------------|-------|----------|
| | Grinding surface 170 mm. for hand, | - - - | △\$30.00 |
| B1898. | Grinding surface 250 mm. for power, | - - - | △ 90.00 |
- *B1899. **Mills**, porcelain, Ball mills, for powdering bacteriological or chemical substances.
- | | | | |
|----|--|-----------|--------|
| a) | Capacity, 0.6 Liter, with cover and clamping arrangement, | - - - - - | \$3.00 |
| b) | Capacity, 5¼ Liter, with cover and clamping arrangement, | - - - - - | 7.00 |
| c) | Capacity, 16.5 Liter, with cover and clamping arrangement, | - - - - - | 30.00 |
- B1900. Porcelain Balls, as above, - - - Kilo, .50



B1901.

- *B1901. **Mill**, porcelain ball mill, capacity 6 Liter, mounted on iron frame, for hand or power, - - - \$30.00

GENERAL LABORATORY APPARATUS



B1902.



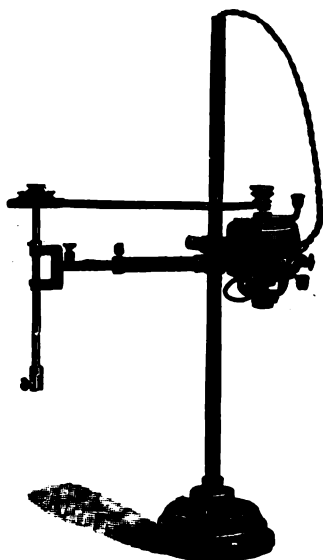
B1903.

*B1902. **Mortars**, Agate, with pestles, superior quality.

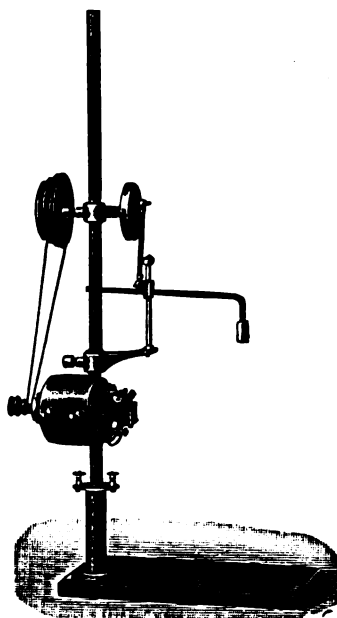
Diameter,	75	100	125	150 mm.
Price,	\$5.00	9.50	18.00	35.00

*B1903. **Mortars**, Porcelain, with pestles, best make.

Diameter,	8	10	12	15	17	20 cm.
Price,	\$.35	.45	.70	.90	1.10	1.40



B1904a.



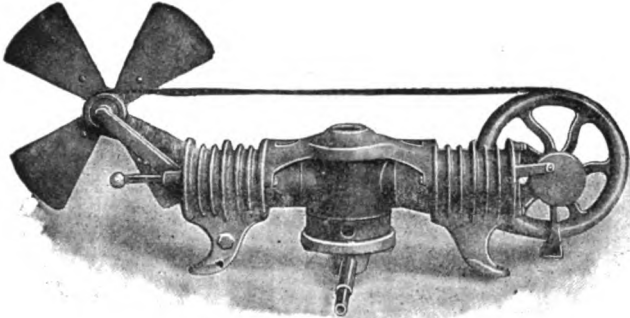
B1904b.

—*B1904. **Motor, electric**, for stirring, shaking or grinding purposes. Portable, on stand with base, for direct current. For alternating current, \$5.00 extra.

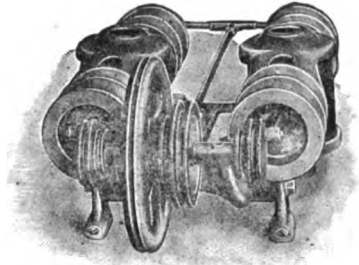
	for current of	65 Volt	110 Volt	220 Volt
a) horizontal movement,		\$26.00	28.75	35.00
b) up and down movement,				
for shaking, - -		\$43.00	46.00	52.00

Motor, electric, see also page 136.

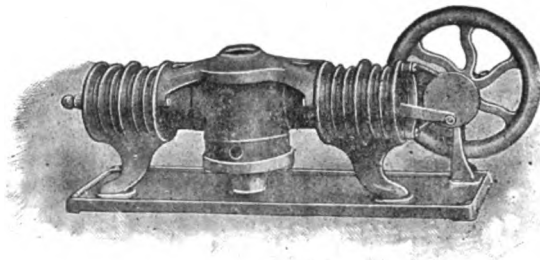
GENERAL LABORATORY APPARATUS



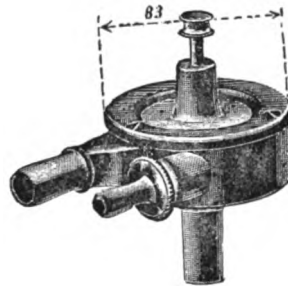
B1905. No. B.



B1905. No. 2.



B1905. No. 1.



B1906.

○*B1905. **Motor**, "Essex" hot-air, for gas, for stirring, shaking and other purposes. The most convenient, most economical and best hot-air motor made.

	Power in HP	Rev. per min.	Gas used per hour	Weight in lbs.	Space occupied	Number of cylinders	Price
○*No. B.	1/40	500	3 cu. ft.	10	6×18 in.	1	\$7.50
○*No. 1.	1/40	500	3 cu. ft.	18	7×18 in.	1	10.00
○*No. 2.	1/20	500	6 cu. ft.	24	9½×18 in.	2	18.00

Motor No. B and 1 fitted with 10 in. fan, additional, \$1.00

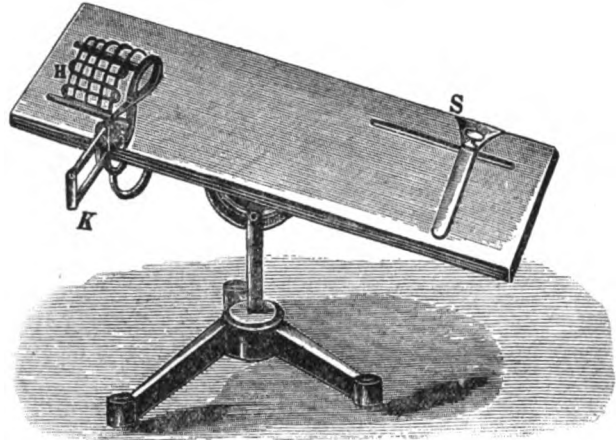
These motors are also furnished with Alcohol burner at same prices.

—*B1906. **Motor, Water Turbine**, after Rabe, for operating stirring, shaking or grinding apparatus in laboratories, by the ordinary water supply; diameter of wheel 60 mm.; complete, with iron holder, - - - \$6.00

GENERAL LABORATORY APPARATUS

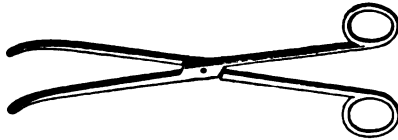


B1907.

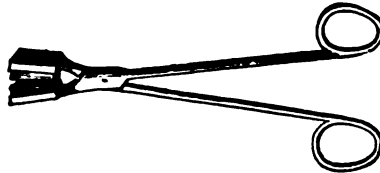


B1908.

- *B1907. **Mouse Holder**, Kitasato's, of nickel-plated brass, on universal stand, - - - - - \$4.00
 *B1908. **Mouse or Rat Holder**, Kitasato's, as above, larger, 12.50
 Holders for larger animals made or imported to order.



B1909.



B1910.



B1911

- *B1909. **Mouse Holders or Tongs**, used during inoculation. Bent or straight, - - - - - \$2.00
 *B1910. **Mouse Holders or Tongs**, Mulder's, cork-lined, - 2.25
 *B1911. **Mouse Jars**, of glass, with wire gauze top, loaded with a heavy cast-iron knob.
 13×17 cm. 15×20 cm.
 \$1.25 1.50

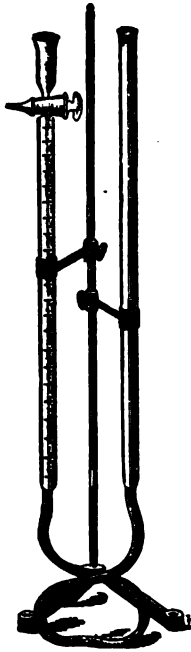
Museum Jars see under "Jars" pages 179—182.



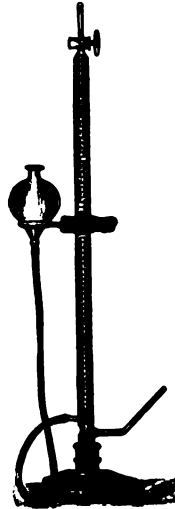
B1913.

- B1912. **Needle**, of platinum, for use in Kolle's holder, - - \$.40
 — *B1913. **Needle**, Nuttall's, of platinum, for vaccination, - 2.75
 — B1913a. With holder according to Kolle, - - - 3.50

GENERAL LABORATORY APPARATUS



B1914.

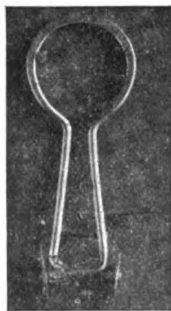


B1915.

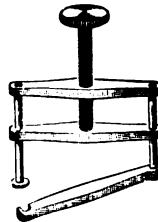
- *B1914. **Nitrogen Determination Apparatus**, or Lunge's
 Nitrometer, 50 CC. in $\frac{1}{10}$ CC., - - - - - \$4.00
 Complete, on stand, - - - - - 7.00
- *B1915. **Nitrogen Determination Apparatus**, or Schiff's
 Azotometer, complete, - - - - - 6.00



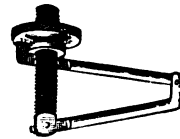
B1916.



B1917.



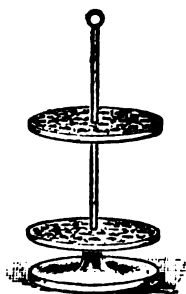
B1919.



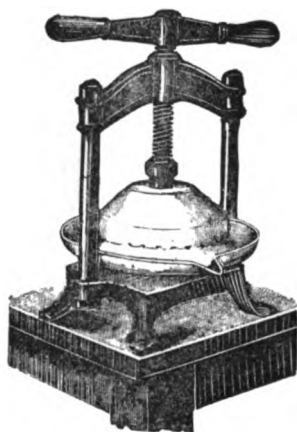
B1920.

- *B1916. **Pinchcocks**, Mohr's. Small. Medium. Large.
 Price, .10 .12 .15
- *B1917. **Pinchcocks**, improved, " .20 .25 .35
- B1918. **Pinchcock**, Hofmann's screw clamp, - - - - - \$.20
- *B1919. **Pinchcock**, " " " improved, - - - .25
- *B1920. **Pinchcock**, Lever screw compressor, - - - .25

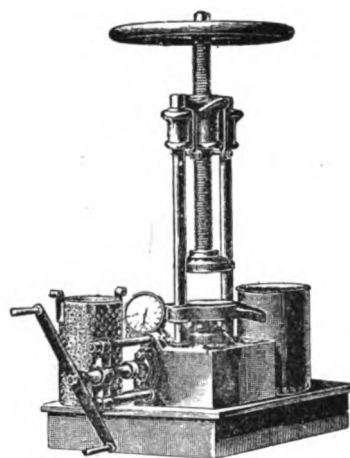
GENERAL LABORATORY APPARATUS



B1923.



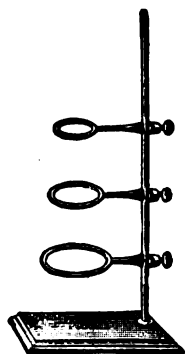
B1924.



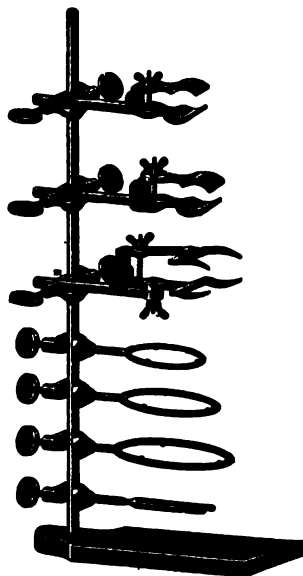
B1925.

- B1921. **Pipettes**, Volumetric, with one mark.
 Capacity, 1 2 5 10 20 25 50 100 CC.
 Price, .10 .12 .15 .20 .25 .30 .40 .50
- B1922. **Pipettes**, Mohr's graduated.
 1 CC. $\frac{1}{100}$ 5 CC. $\frac{1}{20}$ 10 CC. $\frac{1}{20}$ 25 CC. $\frac{1}{10}$ 50 CC. $\frac{1}{10}$
 Price, .35 .45 .55 .70 \$1.20
- *B1923. **Pipette Stand**, of wood, revolving, - - - - \$2.50
Plant Physiology Apparatus, according to Dettmer & Pfeffer. Imported to order. Prices on application.
- *B1924. **Press**, for general laboratory work, with two round plates, of porcelain, 18 cm. diameter, - Price, 45.00
- *B1925. **Press, Hydraulic**, Buchner's, latest construction, for crushing bacteria, or pressing sediments under high pressure. Capacity, 1 Liter, - - - - Δ 220.00
- B1926. **Rubber Caps**, of best black rubber.
 a) For test tubes, - - - - dozen, .35
 b) For flasks, - - - - " .75
- B1927. **Rubber Stoppers**, of best soft rubber, either solid or with 1 or 2 perforations, - - - - lb., 2.00
- B1928. **Rubber Tubing**, best quality, gray, vulcanized, light, for connections; or heavy, for gas burners, from $\frac{1}{8}$ to 1 inch bore, - - - - lb., 1.50
- B1929. **Rubber Tubing**, best pure **black** Para Gum, imported, from $\frac{1}{8}$ to 1 inch bore, - - - - lb., 4.00
- B1930. **Rubber Tubing**, best pure **red** Para Gum, imported, from $\frac{1}{8}$ to 1 inch bore, - - - - lb., 4.50

GENERAL LABORATORY APPARATUS

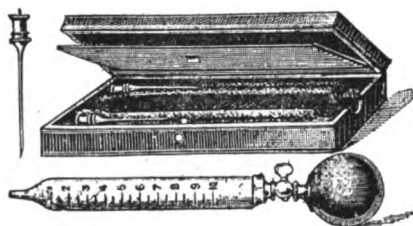


B1931.

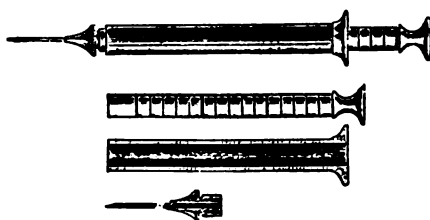


B1932.

- *B1931. **Support**, of iron, with three rings, for flasks, retorts, etc., square or triangular base, - - - - \$.65
- *B1932. **Support**, of iron, Universal, with extra heavy base, four rings and four clamps, - - - - 5.50
- For a full line of other supports see General Catalogue.



B1933.



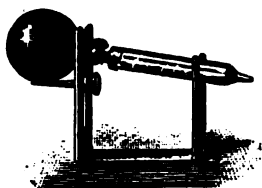
B1935.



B1934.

- *B1933. **Syringes**, Hypodermic, Koch's, sterilizable. in velvet-lined case.
- | | | | | |
|-----------|--------|------|------|-------------|
| Capacity, | 1 | 2 | 5 | 10 grammes. |
| Price, | \$2.25 | 2.75 | 3.25 | 3.75 |
- *B1934. **Syringes**, Hypodermic, Strohschein's, with 2 injecting needles, in case.
- | | | | | |
|-----------|--------|------|------|-------------|
| Capacity, | 1 | 2 | 5 | 10 grammes. |
| Price, | \$1.35 | 1.50 | 1.75 | 2.50 |
- *B1935. **Syringe**, Detmers-Robinson Aseptic Hypodermic, all metal, only three pieces, no washers or packing, complete with two needles, in case, - - - \$2.50

GENERAL LABORATORY APPARATUS



B1936.



B1944.

*B1936. **Syringe Holder**, for Koch's Syringes, of brass, nickel-plated, with adjustable bulb holder, - - - \$2.00

*B1937. **Test Glasses**, on foot, conical, with lip, see page 103.

B1938. **Test Tubes**, of best imported glass, well annealed, specially selected for Bacteriological work.

Size, 130×13 150×15 150×18 180×20 mm.

Price, .28 .32 .35 .50 dozen.

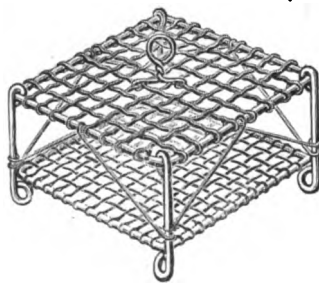
\$2.50 3.00 3.50 5.00 gross.

For other sizes see our General Catalogue.

- B1941. **Test Tube Cleaners**, rattan handle, Probangs, doz. 1.00
- * B1942. **Test Tube Holders**, of wood, with spring - - .20
- B1943. **Test Tube Holders**, of wire, nickel plated, - - .15
- *B1944. **Test Tube Holder**, Babes' form, for demonstration purposes, with lock and key. Of sheet iron, lacquered, 3.00
- *B1945. Of brass, nickel-plated, 4.00



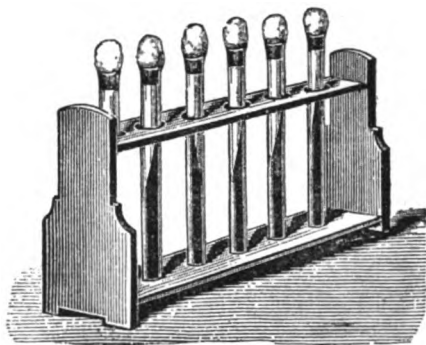
B1946.



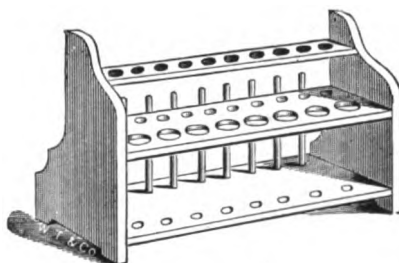
B1946.

- *B1946. **Test Tube Racks**, made of tinned wire, square or round form, for 80 test tubes, - - - .55

GENERAL LABORATORY APPARATUS



B1947.



B1948.

*B1947. **Test Tube Supports**, of hard wood.

For 6 tubes in one row,	-	-	-	-	-	\$.30
For 12 tubes in one row,	-	-	-	-	-	.40

*B1948. **Test Tube Supports**, of hard wood.

For 13 tubes, with drying pins,	-	-	-	-	.60
For 25 tubes, with drying pins,	-	-	-	-	1.00

Thermometers, of superior quality, made of Weber's resistance glass, after Normal Instruments, which were tested by the German "Reichsanstalt."

Reading up to	220	400	600°F.
or to	110	200	360°C.

B1949. Paper Scale,	\$.60	.75	.90 each.
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*B1950. Porcelain Scale,	\$1 00	1.25	1.50 "
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*B1951. Engraved on Stem,	\$1 00	1.25	1.50
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B1952. Engraved on Stem, 110°C. and 220°F., double scale,	-	1.60
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B1953. Engraved on Stem, 360°C. and 600°F., " "	-	2.00
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B1954. **Thermometers**, Standard quality, engraved on stem.

0-100°C. in 1/5	0-100°C. 1/10	100-200°C. 1/5
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Price, \$2.75	3.25	3.25 each.
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*B1955. Thermometers , for incubators, with long, narrow, lower tube to pass into the oven, with porcelain scale up to 50°C. 1/10,	-	-	-	-	-	2.50
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— B1956. Thermometers, Normal , of Jena glass, porcelain scale, with certificate of the "Deutsche Reichsanstalt."		
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0°-100°C. in 1/5,	-	-	-	-	-	11.25
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100°-200°C. 1/5,	-	-	-	-	-	14.50
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B1957. Thermometer, Maximum , engraved on stem, for disinfecting apparatus, 100°C., in 1/2°,	-	-	-	2.00
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*B1958. **Thermometers, Alarm**, announcing critical temperatures.

For Incubators, giving alarm at 40°C.,	-	-	-	5.00
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B1959. For Sterilizers, giving alarm at 100°C.,	-	-	-	5.00
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For other temperatures, made to order.

(Thermometers illustrated on next page.)

GENERAL LABORATORY APPARATUS



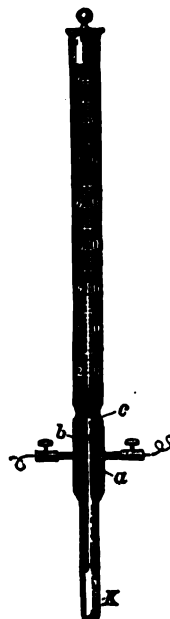
B1950.



B1951.

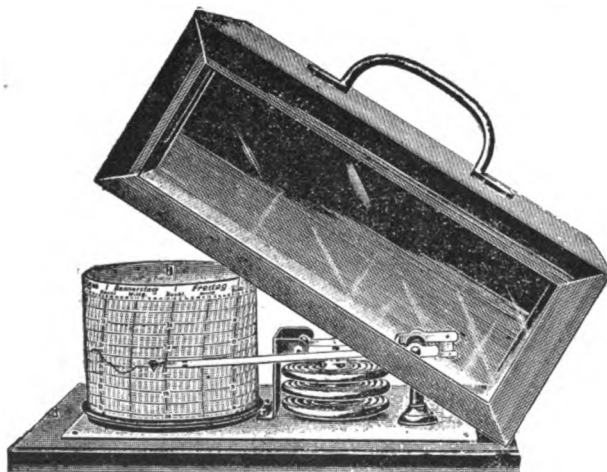


B1955.



B1960.

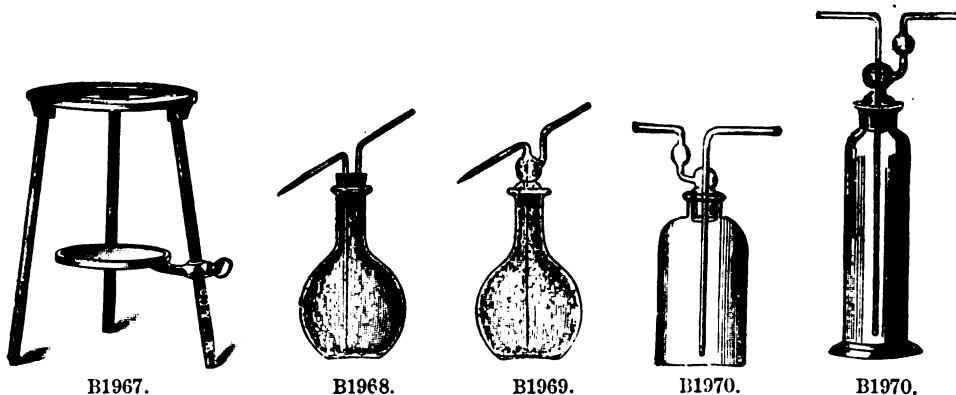
- *B1960. **Thermometer, Alarm, Patent**, for announcing any temperature of sterilizers, incubators, etc.; by an electric bell; very accurate, - - - - - \$18.00
- B1961. **Thermometer**, filled with Pentane, to measure extremely low temperatures, from $+ 50^{\circ}$ to $- 200^{\circ}\text{C}$. in $1/1^{\circ}$, - - - - - Price, 10.00



B1962a.

- B1962. **Thermometer, Recording, Thermograph**, Sendtner's, similar to cut B1962a, in metal case, with glass front for observation; with clockwork for 8 days, and thermogramme tape for 1 year, including pens and marking ink - - - - - Δ \$50.00
- *B1962a. **Barometer, Recording**, Sendtner's. Portable, in case, Δ 50.00

GENERAL LABORATORY APPARATUS



- B1963. **Triangles**, of iron, plain, - - each, .5; dozen, \$.50
- B1964. **Triangles**, with pipestems, - each, .8; dozen, .75
- B1965. **Triangles**, with pipestems, new form, each, .10; dozen, 1.00
- B1966. **Tripods**, of iron, for Bunsen Burners, etc.
 Diameter, 10 13 15 20 25 cm.
 Price, plain, \$.25 .30 .40 .45 .55
 Price, with rings, .30 .35 .50 .75 1.00
- *B1967. **Tripods**, with adjustable lamp bracket, 22 cm. high, 15 cm. diameter - - - - - 1.00
- *B1968. **Wash Bottles**, fitted with tubes and rubber stoppers.
 Capacity, 125 250 500 1000 cc.
 Price, \$.35 .40 .50 .75
- *B1969. **Wash Bottles**, with tube ground into neck of flask, for Ether, Alcohol, etc.
 Capacity, 125 250 500 1000 cc.
 Price, \$.75 1.00 1.25 1.50
- *B1970. **Wash Bottles**, Drechsel's, for washing gases, low or high shape.
 Capacity, 125 250 500 cc.
 Price, \$.75 .90 1.25
- B1971. **Waste-Jars**, of glazed earthenware, with handles and covers.
 Capacity, 4 8 12 20 Liters.
 Price, \$.40 .65 .80 1.25
- B1972. **Watchglasses**, for covering Beakers, etc.
 Diameter, 50 65 75 100 125 150 mm.
 Price, \$.25 .50 .65 1.00 1.75 2.40 dozen.
- B1973. **Watchglasses**, in sets of two, ground together with clips.
 Diameter, 50 65 75 100 mm.
 Price, \$.30 .40 .50 .60 pair.

GENERAL LABORATORY APPARATUS



B1974.



B1975.

- *B1974. **Waterbaths**, of polished copper, tin-lined, with concentric copper rings, cover and steam escape.

Diameter, 10 13 15 20 25 cm.

Price, \$.80 1.00 1.25 2.25 4.50

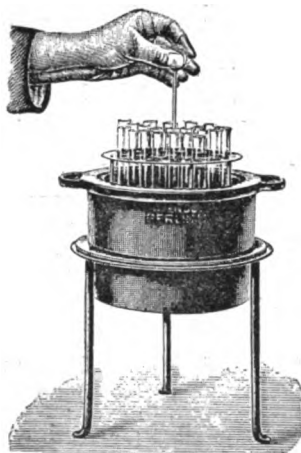
- *B1975. **Waterbaths**, with Kekulé's constant water level.

Price, \$1.25 1.50 1.75 2.75 5 00

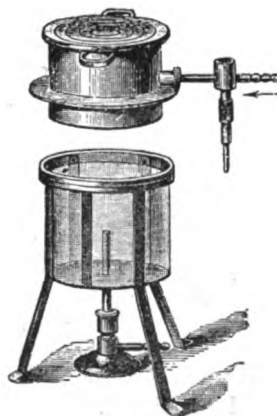
- B1975a. **Waterbaths**, with level and tripod.

Price, \$1.50 1.75 2.25 3.25 5 50

} Same sizes
as B1974.



B1976b.



B1977.

- Waterbaths**, cylindrical, of cast iron, enameled inside, with concentric copper rings, cover and ring for tripod.

Diameter, 12 16 21 25 cm.

- B1976. Bath alone, \$1.25 2.00 3.00 4.00

- B1976a. With tripod, \$1.75 2.75 3.75 5.00

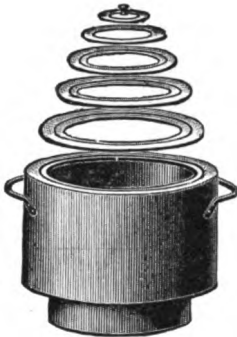
- *B1976b. With tripod and copper rack for test tubes.
\$2.50 3.75 5.00 6.50

- *B1977. **Waterbaths**, cylindrical, with constant level and safety arrangement, for use with inflammable liquids; complete with burner.

Diameter, 12 16 21 cm.

Price, \$6.50 8.00 10.00

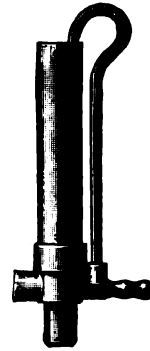
GENERAL LABORATORY APPARATUS



B1978.



B1978a.



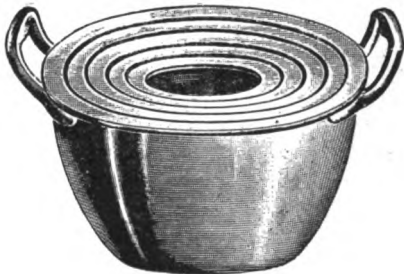
B1978.

- *B1978. **Waterbath**, wrought iron, maroon enamel on the outside, white enamel on the inside. With detachable water level regulator, and improved, concentric copper rings, also enameled. Improvement consists of the inner rim of the rings bent down to an angle of 45°, thus giving greater stability to flasks, especially such with round bottoms and also insuring a better contact with less escape of heat.

16 cm. diameter, - - - - - \$4.00

20 cm. diameter, - - - - - 5.00

—*B1978a. Tripods, for above, - - - - - .75



B1979.



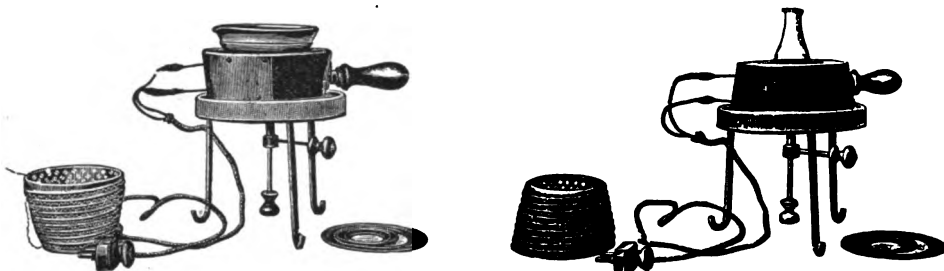
B1980.

- *B1979. **Waterbath**, made of **pure nickel**, with concentric rings and handles. 12 16 18 cm. diameter
600 1300 1800 ccm. capacity
△\$4.00 △5.50 6.50

Waterbaths, electrically heated, for 110 volts, complete with conduits, 2 plugs, 1 connector and concentric copper rings, diameter, 15 cm. 21 cm. Amperes.

- *B1980. Cylindrical, iron, enameled, △\$18.50 △22.50 7 & 10 resp.
○ B1980a. Spherical, copper, △\$20.00 △25.00 5 " 7 "

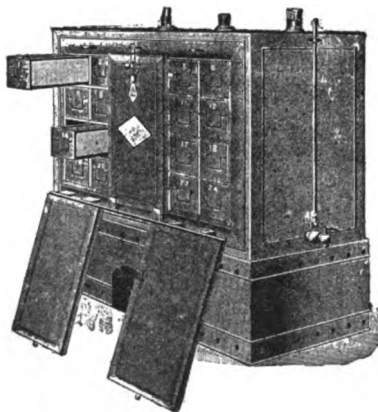
GENERAL LABORATORY APPARATUS



B1981.

○*B1981. **Waterbath**, heated by electricity, with adjustable support,

	conical	bot. dia.	top dia.	height	
a) Dimensions,	90	115	75	mm.,	110 volt × 4 amp. △ \$15.00
b) Dimensions,	90	125	100	mm.,	220 volt × 4 amp. △ 15.00
	cylindrical	dia.	height		
c) Dimensions,	85	105	mm.,	110 volt × 3 amp. △ 15.00	
d) Dimensions,	105	20	mm.,	220 volt × 4 amp. △ 15.00	



B1982b.

WATERBATH, DR. LILLIE'S PATTERN.

These Baths are made in cabinet form, of heavy polished copper, with double walls, and covered with insulating material that can be easily cleaned. They contain numbered drawers, 25 cm. long, 10 cm. wide and 8 cm. deep, with sides and backs made of perforated zinc, and bottoms and fronts of polished copper with brass handles.

They are provided with a water gauge and faucet and tubulations for thermometer and thermo-regulator.

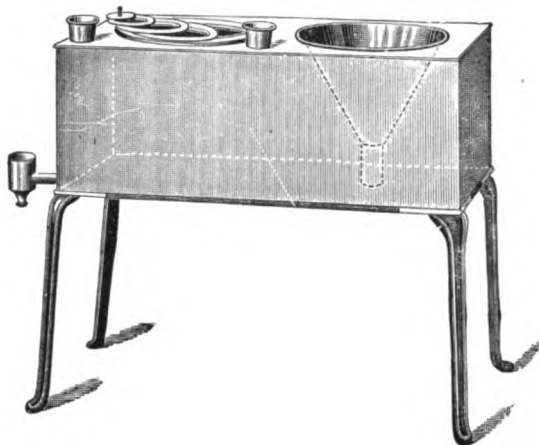
The Cabinet is supported on a heavy iron frame, 8 inches high, covered with sheet iron.

- B1982. 8 Drawers (with 1 Door, side hinges), - - - - \$60.00
- B1982a. 16 Drawers (with 2 Doors, side hinges), - - - - 80 00
- *B1982b. 24 Drawers (with 3 Doors, hinged as illustrated above), 100.00
- Burner Thermometer, and Thermo-regulator, for above, 5.00

GENERAL LABORATORY APPARATUS

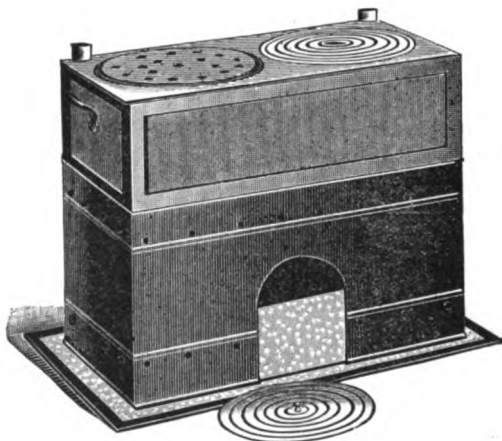


B1983.



B1984.

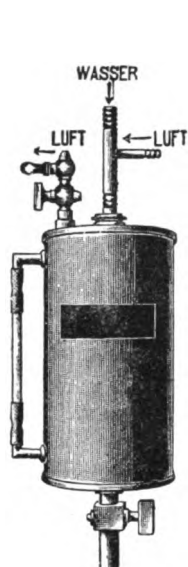
- *B1983. **Waterbath**, for inoculating Gelatine Tubes, of polished copper, tin-lined, 19×8 cm., - - - - - \$2.50
- *B1984. **Waterbath**, Griffin's, of copper, tin-lined, for evaporation and hot filtration, with copper funnel and 13 cm. hole, with concentric rings. It is provided with a constant water level and an extra sheet-iron bottom on four detachable legs, - - - - - 10.00



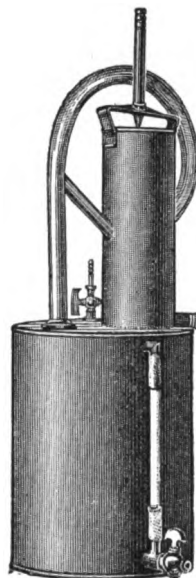
B1985.

- *B1985. **Waterbath**, Mabon's, made of polished copper, tin-lined, with extra sheet-iron bottom. It is provided with two sets of concentric rings of five each, giving openings for flasks, from 25 to 125 mm. and an extra plate with 22 holes for test tubes. The bath has tubulations for thermometer and filling.
- | | | |
|--|-----|---------|
| 38 cm. long, 18 cm. wide, 13 cm. high, | - - | \$10.00 |
| Gas Burner and Thermometer for same, | - - | 1.50 |
- Price includes 20 cm. sheet-iron Base and Asbestos Mat.

GENERAL LABORATORY APPARATUS

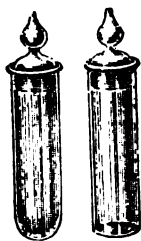


B1987.

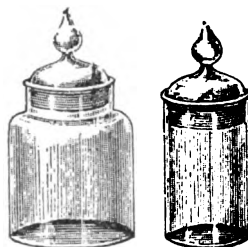


B1988.

- B1986. **Waterblast**, Richards', for exhausting and compressing air, for blast lamps, complete with pump, - - - \$8.75
- *B1987. **Waterblast**, Muencke's latest construction, for same purpose, - - - - - 14.00
- *B1988. **Waterblast**, Dr. B. B. Boltwood's new Model; much more effective than any other similar Apparatus now in the market. See page 3 of cover, - - - 12.00



B1989a. B1989b.

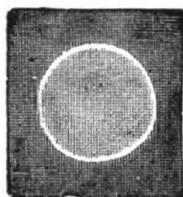


B1990a.

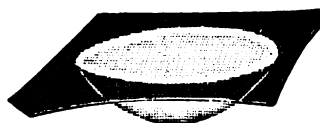
B1990b.

- *B1989. **Weighing Tubes**, high shape, ground stopper.
- | | | | |
|--------------|-------|-------|------------|
| Dimensions, | 50×15 | 75×20 | 100×25 mm. |
| Form a or b, | .18 | .22 | .25 |
- *B1990. **Weighing Bottles**, light, with ground stopper.
- | | | | |
|--------------|-------|-------|----------------|
| Dimensions, | 50×25 | 50×33 | 75×40 mm. dia. |
| Form a or b, | .25 | .30 | .45 |

GENERAL LABORATORY APPARATUS



B1992.



B1992a.

Weights, see page 138.

B1991.	Wire Gauze,	10×10	13×13	15×15	cm.
	Price, of iron,	.05	.07	.10	
	Price, of brass,	.07	.12	.15	

*B1992. **Wire Gauze,** of tinned iron wire, with pressed-in asbestos centres.

Size,	10×10	13×13	15×15	cm.
Price,	.12	.15	.20	

*B1992a. **Wire Gauze,** as above, with pressed-in hemispherical asbestos centres.

Size,	10×10	13×13	15×15	20×20	cm.
Price,	.35	.40	.45	.55	



B1993.



B1993a.

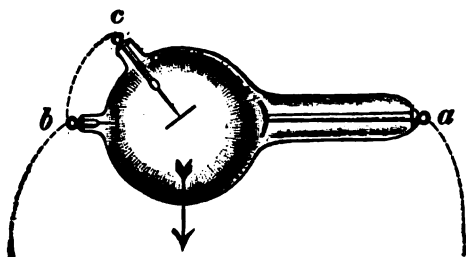
*B1993. **Woulf Bottles,** of heavy glass, 2 necks, well annealed.

Capacity,	¼	½	1	2	4	8	Liters.
Price,	\$.45	.60	.85	1.25	2.25	3.50	

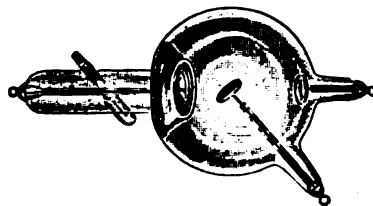
*B1993a. **Woulf Bottles,** of heavy glass, 3 necks, well annealed.

Capacity,	¼	½	1	2	4	8	Liters.
Price,	\$.50	.65	.95	1.40	2.50	4.00	

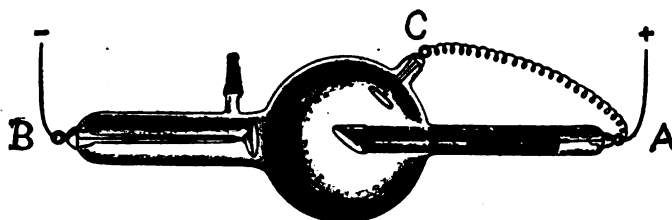
X- or Roentgen-Ray Tubes and Accessories



B1994-1a.



B1994a.



B1994-2a.

*B1994. **Roentgen-Tubes**, of the famous **Gundelach** make, none better made, for either see-saw-, mercury- or Wehnelt's electrolytic interrupter, all provided with regenerative arrangement.

For induction coils

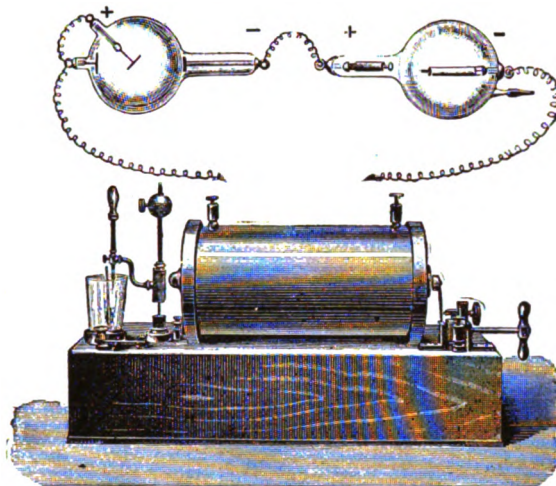
	producing a spark of	Style 1a	Style 2a, patented
0	8—10 cm. length,	\$5.25	—
I	10—12 cm. "	6.50	—
II	15—20 cm. "	7.00	11.50
III	30 cm. "	7.50	13.50
IV	40 cm. "	8.50	15.00
V	50 cm. "	9.50	17.50
VI	60 cm. "	10.50	19.00
VII	70 cm. "	11.50	21.00
VIII	100 cm. "	20.00	27.50

*B1994a. The **X-Ray Tubes** Nos. III, IV and V and of style 1a can be had with the neck pressed into the bulb, this produces a sharper outline of pictures. The outside of the pressed-in part of the neck is silvered. This arrangement increases the prices, - - - - \$2.00

*B1995. **Ventilating Tubes** with regenerative arrangement preventing the appearance of alternating currents in X-ray tubes; it avoids their hardening, and thus increases their life. They are connected as illustrated. Price, 7.00

Illustration see next page.

X- OR ROENTGEN-RAY TUBES AND ACCESSORIES



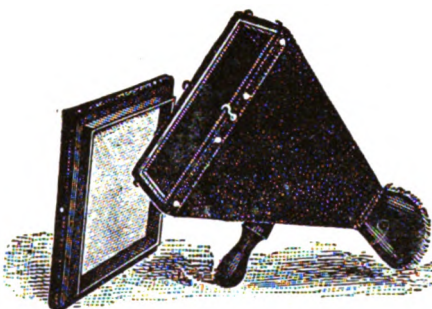
B1995 and 1998.

- B1996. **Screens** for X-ray work, manufactured by C. A. F. Kahlbaum, Berlin. Covered with Barium-Platinum Cyanide, mounted on wooden frame.

9×12 cm.,	-	\$4 50
13×18 cm.,	-	8 75
18×24 cm.,	-	15 35
24×30 cm.,	-	24 40
30×40 cm.,	-	39 90
40×50 cm.,	-	68 00

Kahlbaum's extra "C" quality, the very best made, same sizes 10% higher.

- *B1997. **Fluoroscopes**, with removable screens. These fluoroscopes are of the best make, and are provided with Kahlbaum's screens.



B1997.

Size of Screen,	9×12	13×18	15×20	18×24	20×25 cm.
Price,	\$7.00	12.00	15 00	18.00	22 00

- *B1998. **Induction Coils, Ruhmkorffs**, with automatic break, mounted on polished mahogany base; give a heavy spark. Best make.

Spark about,	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1 in.	$1\frac{1}{4}$	$1\frac{1}{2}$
	\$3.50	4.50	9.00	13.50	18.00	22 50	27 00
Spark about,	2	3	4	5	6*	8	10 in.
	\$36 00	54.00	72.00	90 00	108.00	144.00	180.00

- B1999. **Spectacles** for X-ray work, with large, round lenses from 45 to 48 mm. diameter. Impenetrable to X-rays, mounted in nickel frame, - - - per pair, \$2 00

Complete line of X-ray work accessories supplied at lowest prices.

* Induction Coils are furnished with spring interrupters; a mercury interrupter, as illustrated, for 6-in upward, extra - - - \$5.00 to \$10.00

We are sole Representatives for the

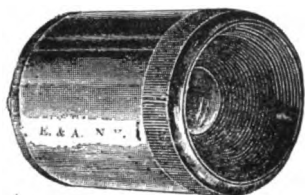
RADIUM-SALTS

made under the supervision of **Mme. Curie**,
and can furnish these

Radium-salts from $40 \times$ to $1,800,000 \times$ activity

Subject to the limited supply.

Prices on application.



BRS.



BRL (closed).



BRL (open).

- *BRS. **Spinthariscopes**, illustrating the scintillations and emanations of **Radium**. It consists of a powerful lens mounted in a brass frame, at the bottom of which a small screen is fastened. Over this a movable needle is suspended, carrying the Radium. The lens (or eyepiece) can be focussed, - - - - - \$9.00
 - BRSI. **Spinthariscopes** **Slide**, to be used under the microscope for the same purpose as the foregoing, - 4.50
 - **Calcium sulfide**, phosphorescent, - - - lb., 2.00
 - **Zinc sulfide**, phosphorescent, "extremely strong," acc. to Verneuil, - - - per bottle of 25 grm., 6.00
 - **Zinc sulfide**, phosphorescent, "very strong," per bottle of 25 grm., 3.00
- This zinc sulfide and calcium sulfide is used for making screens which become highly phosphorescent when excited by Radium-, Roentgen- or ultra-violet rays.
- *BRL. **Lecture Boxes**, containing six tubes filled with preparations **phosphorescing** in various colors when excited by Roentgen-, ultra-violet- or Radium rays. The cover has a board covered with calcium sulfide phosphorescent under glass, which phosphoresces in a purple hue when acted upon as above. - - 4.00
 - BRSC **Spinthariscopes**, cheap form, - - - - 2.00
 - BRSS. **Spinthariscopes** **Slide**, cheap form, - - - - 1 00

APPENDIX

COLLECTIONS

— Bacteria Preparations,	- - - - -	each,	\$.85
Set of 72, in case,	- - - - -	-	62.00
— Diatoms, test plate of 20, in case, with printed list, mounted			
in balsam or styrax,	- - - - -	-	5.50
— Diatoms, as above, mounted dry,	- - - - -	-	6.00
— Diatoms, test plate of 60, in case, with printed list, mounted			
in balsam or styrax,	- - - - -	-	10.00
— Diatoms, as above, mounted dry,	- - - - -	-	12.00
— Histological Objects,			
a) Comparative,	- - - - -	each,	.60
Set of 36 preparations, in cabinet,	- - - - -	-	21.00
b) Human,	- - - - -	each,	.60
Set of 48 preparations, in cabinet,	- - - - -	-	30.00
○ Micro-Preparations,			
a) Botanical, b) Zoological, c) Physiological. Single specimens, each			.60
Set of 25 specimens, in cabinet, a), b), or c),	- - - - -	-	12.00
Special Circular describing Micro-Preparations, on Application,			
— Pathological Objects.			
a) Organ Series,	- - - - -	each,	.60
Set of 36 preparations, in cabinet,	- - - - -	-	21.00
b) Tumor Series,	- - - - -	each,	.60
Set of 36 preparations, in cabinet,	- - - - -	-	21.00
c) Nervous System,	- - - - -	each,	1.50
Set of 34 sections, in cabinet,	- - - - -	-	51.50
— Vegetable Sections, illustrating structure,	- - - - -	each,	.60
Set of 24 preparations, in cabinet,	- - - - -	-	15.00
Set of 46 preparations, in cabinet,	- - - - -	-	28.50
— Nutrients or Culture Media, carefully prepared, as used in			
Carnegie Laboratory, New York.			
Agar-Agar, in test tubes, - - -	dozen, \$1.20.	500 cc. flask,	3.00
Blood Serum (for diphtheria), in test			
tubes, - - - - -	dozen, 1.80	" " "	5.00
Bouillon, in test tubes, - - -	" 1.20	" " "	3.00
Dunham's Pepton Water, in test tubes, -	" 1.20	" " "	3.00
Gelatine, in test tubes, - - -	" 1.20	" " "	3.00
Glucose Agar-Agar, in test tubes, - -	" 1.50	" " "	4.00
Glucose Bouillon, in test tubes, - -	" 1.20	" " "	3.00
Litmus Milk, in test tubes, - - -	" 1.50	" " "	4.00
Milk, " " " - - -	" 1.50	" " "	4.00
Potatoes, " " " - - -	" 1.80		
Peptone, Witte's, in original bottles, - - -		250 grm.	1.75
		500 grm.	3.25

Standard Volumetric Solutions

Acid hydrochloric, normal or $\frac{1}{10}$ normal.....	$\frac{1}{2}$ litre, \$0 75	1 litre, \$1 00
“ nitric, normal or $\frac{1}{10}$ normal.....	“ 75	“ 1 00
“ oxalic, normal or $\frac{1}{10}$ normal.....	“ 75	“ 1 00
“ sulfuric, normal or $\frac{1}{10}$ normal.....	“ 75	“ 1 00
Ammonium sulfo-cyanide, deci-normal.....	“ 75	“ 1 25
Arsenious oxide, deci-normal.....	“ 75	“ 1 25
Barium chloride, normal or $\frac{1}{10}$ normal.....	“ 75	“ 1 00
Iodine, deci-normal or $\frac{1}{100}$ normal.....	“ 75	“ 1 00
“ normal	“ 2 75	“ 4 00
Mercury nitrate	“ 75	“ 1 25
Potassium caustic, normal or $\frac{1}{10}$ normal	“ 75	“ 1 25
“ bichromate, $\frac{1}{10}$ normal	“ 75	“ 1 00
“ permanganate, deci-normal	“ 75	“ 1 00
Silver nitrate, deci-normal.....	“ 75	“ 1 25
Sodium caustic, normal or $\frac{1}{10}$ normal.....	“ 75	“ 1 25
“ chloride, deci-normal	“ 75	“ 1 00
“ thio-sulfate, deci-normal	“ 75	“ 1 00
Uranium acetate	“ 75	“ 1 50
“ nitrate	“ 75	“ 1 50
Sodium oxide, normal, made from Sodium amalgam.....	lb, 1 15	

We do not sell less than $\frac{1}{2}$ litre, at 75c., including bottle.

Standard solutions not enumerated above made to order promptly.

Chemicals in Cubes for Generating Gases

Chlorine cubes for generating chlorine gas.....	lb. 30c.
Oxygen “ “ “ oxygen gas	“ 55c.
Sulfide “ “ “ sulfuretted hydrogen	“ 45c.
Sulfite “ “ “ sulfurous acid	“ 50c.

Colors, Stains and Chemical Preparations

FOR USE IN

MICROSCOPY

Manufactured by DR. GEORGE GRUEBLER & CO.

EIMER & AMEND			BOTTLES INCLUDED		
Agents					
—Acid, brown.....	Gms. 10	\$0 25	Gms. 25	\$0 60	
— “ carminic, pure (P. Mayer).....	“ 1	20	“ 10	1 80	
— “ violet (Kühne).....	“ 10	35	“ 25	85	
—Alum, carmine (Gr.).....	“ 10	80	“ 25	2 00	
—Alizarin, dry I (Rawitz).	“ 10	40	“ 25	95	
— “ blue S. (Ehrlich).....	“ 10	30	“ 25	70	
—Alkali, blue.....	“ 10	35	“ 25	85	

GRUEBLER'S STAINS.—Continued

—Alkanin, red, sol. in oil.....	Gms.	10	\$0 40	Gms.	..	\$....
—Aniline, blue, sol. in alcohol.....	"	10	35	"	25	0 80
— " " sol. in water.....	"	10	35	"	25	75
— " blue black.....	"	10	35	"	25	80
— " yellow.....	"	10	25	"	25	60
— " green (Strassburger).....	"	10	30	"	25	70
—Aurantia.....	"	10	45	"	25	1 05
—Azo-blue.....	"	10	30	"	..	....
—Azur-blue I, Giemsa.....	"	1	2 50	"	10	25 00
— " " II, Giemsa.....	"	1	1 25	"	10	12 50
—Benzo-Azurin.....	"	10	35	"	25	80
—Benzo-Purpurine (Birch-Hirschfeld).....	"	10	30	"	..	75
—Berlin-blue, Ia soluble in water.....	"	10	30	"	25	75
—Biebrich scarlet (Griesbach).....	"	10	30	"	25	65
—Blondi-Heidenhain 3 color mixture, dry... 1 gm. 20c..	"	10	1 50	"	25	3 60
—Bismarck-brown (Weigert)..... 10 gms. 20c..	"	25	45	"	100	1 75
—Blue Lyon (Griesbach)..... 10 gms. 30c..	"	25	75	"	100	2 90
—Blue, Berlin, Ia soluble in water..... 10	"	10	30	"	25	75
—Bordeau-red (Griesbach).....	"	10	30	"	25	70
—Brasilin.....	"	1	25	"	10	2 25
—Brilliant green.....	"	10	30	"	..	....
—Carmalum, dry (P. Mayer).....	"	10	60	"	..	....
—Carmine, red, best..... 10 gms. 45c.	"	25	1 00	"	100	4 00
—Carminate Ammonia (Hoyer).....	"	10	1 75	"	..	....
—Carminate of Soda.....	"	10	1 75	"	..	....
—Chromogen.....	"	10	20	"	..	....
—Chrysoidine.....	"	10	25	"	25	60
—Coccine.....	"	10	30	"	..	....
—Congo-red (Nissl).....	"	10	35	"	25	80
—Corallin, sol. in alcohol (Strassburger).....	"	10	25	"	25	55
— " sol. in water.....	"	10	25	"	25	60
—Crystal-violet.....	"	10	30	"	25	70
—Crocein (Griesbach).....	"	10	30	"	25	70
—Curcumeline.....	"	10	20	"	..	....
—Cyanin.....	"	1	75	"	10	7 00
—Dahlia.....	"	10	30	"	25	65
—Diamant-Fuchsin.....	"	10	30	"	25	65
—Eosin, A. G.....	"	10	35	"	..	....
— " B. A.....	"	10	30	"	25	70
— " sol. in water, yellowish..... 10 gms. 30c..	"	25	70	"	100	2 50
— " sol. in alcohol.....	"	10	30	"	25	70
— " sol. in water, bluish.....	"	10	25	"	25	50
— " true French, pure.....	"	10	30	"	25	70
—Erythrosin, pure.....	"	10	45	"	25	1 00
—Ethyl-violet.....	"	10	35	"	25	85
—Fluorescein (Kuehne-Szaplewski).....	"	10	45	"	25	1 00
—Fuchsin, for staining bacilli.....	"	10	25	"	25	55
— " S (acid fuchsin, Weigert).....	"	10	30	"	25	65
—Galeine, paste.....	"	10	10	"	..	....
—Gentian-violet..... 10 gms. 25c..	"	25	60	"	100	2 25
—Green, genuine.....	"	10	30	"	25	60
— " emerald.....	"	10	30	"	25	70
— " solid..... 10 gms. 30c..	"	25	70	"	100	2 75

GRUEBLER'S STAINS.—Continued

—Haemalum, dry.....	Gms.	10	\$0 70	Gms.	25	\$1 50
—Haematein, c. p. (P. Mayer).....	"	1	40	"	10	3 50
— " Ammonia (P. Mayer).....	"	1	35	"	10	3 25
—Haematoxilin, cryst, chem. pure.....	"	10	70	"	25	1 70
—Hellanthin.....	"	10	20	"	25	45
—Hofman violet.....	"	10	35	"	25	85
—Indigo-carmin (sulfindigotate of soda).....	"	10	45	"	25	1 00
— " " for injection Ia.....	"	1	40	"	5	1 80
—Indulin.....	"	10	35	"	25	85
—Jenner's stain, dry.....	"	1	20	"	..	....
—Jod-Eosine.....	"	10	45	"	25	1 05
—Iodine-green (Griesbach).....	"	10	50	"	25	1 20
—Light-green, F. S.....	"	10	25	"	25	60
—Logwood Extract.....	"	..	..	"	25	25
—Magdala red, true.....	"	1	35	"	..	....
— " " com'l.....	"	10	40	"	25	95
—Magenta-red.....	"	10	35	"	25	85
—Malachit green.....	"	10	30	"	25	70
—Methyl-blue.....	"	10	40	"	25	95
— " -eosin.....	"	10	40	"	25	90
— " -green.....	100 gms.	3 50..	"	10	40	25 90
— " " " cryst. OO, yellowish.....	"	10	50	"	25	1 25
— " -orange.....	"	10	25	"	25	55
— " -violet, 1 B.....	"	10	35	"	25	75
— " " 5 B.....	"	10	30	"	25	70
— " " 6 B (hexamethylviolet).....	"	10	35	"	25	85
—Methylene-blue, for staining bacilli (Koch).....	{	"	10	30	"	25 70
— " " B. X. (S. Meyer).....		"	100	2 50	"	500 12 00
— " " (Gutman & Ehrlich) med. pure.....	"	10	45	"	25	1 10
— " " rectif. Ehrlich, for injection.....	"	10	50	"	25	1 20
— " " " ".....	"	10	1 50	"	25	3 60
—Naphthallin-red, pure.....	"	1	50	"	..	....
—Naphthylamine-brown (O. Kaiser).....	"	10	25	"	25	60
— " -yellow (naphtholyellow).....	"	10	25	"	25	65
—Neutral red.....	"	10	1 00	"	25	1 90
—Nigrosin, sol. in water.....	"	10	25	"	25	60
— " sol. in alcohol.....	"	10	25	"	25	60
— " sol. in alc.....	"	10	25	"	25	60
—Orange, G.....	10 gms.	20c..	"	25	50	" 100 1 90
—Orcein, pure.....	1 gms.	20c..	"	10	1 80	" 25 4 60
—Picrocarmin (Cuccati).....	"	1	30	"	..	....
— " (Hoyer).....	"	5	1 40	"	..	....
— " (Ranvier).....	1 gms.	30c..	"	5	1 40	" 10 2 60
—Ponceau-red.....	"	10	25	"	25	60
—Purpurin, dry, best.....	"	10	4 25	"	..	....
—Pyronin.....	"	10	40	"	..	....
—Rosaniline, basic.....	"	10	45	"	25	1 10
— " chlorhydrate.....	"	10	30	"	25	75
— " nitrate.....	"	10	35	"	..	....
— " picrate.....	"	10	45	"	..	....
— " sulfate.....	"	10	35	"	..	....
—Rosazurin, B. or G.....	"	10	50	"	25	1 10
—Rose-Bengal (Griesbach).....	"	10	40	"	..	....

GRUEBLERS STAINS.—Continued

—Rubin S.....	Gms. 10	\$ 30	Gms. 25	\$0 65
—Ruthenium-red.....	" 0,1	1 50	" ..	...
—Sufranine O, sol. in water Pfitzner-Fleming.....	" 10	40	" 25	70
— " sol. in alcohol.....	" 10	40	" 25	95
—Spiller's Purple.....	" 1	65	" ..	....
—Sudan No. 3.....	" 10	30	" 25	70
—Thionin.....1 grm. 20c..	" 10	1 50	" 25	3 60
—Toluidine-blue (Hoyer).....	" 10	35	" 25	85
—Tropaeolin 00.....	" 25	60	" ..	....
—Vesuvium-brown (Koch).....	" 10	25	" 25	60
—Victoria-blue, 4 R. (Lustgarten).....	" 10	40	" 25	90
—Wool-black, for staining bacteria (Loeffler).....	" 10	25	" 25	60
—Yellow, genuine	" 10	30	" ..	....
— " (Martius).....	" 10	25	" 25	65
— " Naphtylamine (Naphtol).....	" 10	25	" 25	65

Colors for Injections.

—Berlin blue, Ia, easily sol. in dist. water...10 gms. 30c..	Gms. 25	\$0 75	Gms. 100	\$2 75
—Methylen blue, rectified (Ehrlich).....	" 10	1 50	" 25	3 60
—Neutral red (Ehrlich).....	" 10	75	" 25	1 75
—Glue Injection Compound, see below				
—Indigo carmine Ia.....	" 1	40	" 10	3 50

Colors in Solutions and Various Preparations.

—Alum, carmine (Grenacher).....	Gms. 100	\$0 25	Grm. 500	\$1 15
—Alcohol, carmine (Grenacher).....	" 100	60	" ..	....
— " " (P. Mayer).....	" 100	75	" ..	....
—Ammonia, carmine	" 100	25	" 500	1 15
— " " concentrated.....	" 100	75	" 500	3 65
—Blondl, Heidenhain 3 color mixture.....	" 25	25	" 100	80
—Borax, carmine (Grenacher).....	" 100	25	" 500	1 15
— " " alcohol (Grenacher).....	" 100	60	" 500	3 75
—Carbol fuchsin sol. (Ziehl-Neelsen).....	" 25	10	" 100	30
—Carmin, solution (Cuccati).....	" 100	60	" ..	....
— " " (Beale).....	" 100	45	" 500	2 00
—Cochineal tincture (P. Mayer).....neu, 100 gms. 55c..	" 100	40	" ..	.. .
—Ehrlich's 3 color mixture.....	" 25	35	" ..	....
— " 3 Acid solution.....	" 50	50	" ..	....
—Einschlussflüssigkeit, after Farrant.....	" 100	1 40	" ..	....
—Eosin hæmatoxylin glycerin, con. (Renaut).....	" 100	1 25	" ..	....
— " " solution (Ehrlich).....	" 100	60	" 500	2 75
— " Jod Uma.....	" 100	50	" 500	2 25
—Gabbett's Bacilli Coloring No. 1	" 1 00	15	" ..	....
— " " " No. 2.....	" 50	20	" ..	....

GRUEBLER'S STAINS.—Continued

— Haemalum (Mayer).....	Gms. 50	\$0 15	Gms. ..	\$....
— Haematoxylin sol. (Boehmer).....	" 500	1 25	" ..	....
— " " alc. (Kleinberg).....	" 500	2 75	" ..	....
— " " (Grenacher-Delafield).....	" 100	50	" 500	2 25
— " double color mixture (Weigert).....	" 100	40	" 500	1 75
— " sol. I, II, III, each.....	" 50	20	" ..	....
— Jenner's stain solution.....	" 50	35	" ..	....
— Kernschwartz tinction.....	" 50	50	" ..	....
— Leishman's Malaria stain.....	" 50	55	" ..	....
— Lithiocarmine solution.....	" 100	50	" ..	....
— Lithion carmin (Orth).....	" 50	30	" ..	....
— Loeffler's stain for bacilli (Geisselbeize).....	" 50	35	" ..	....
— Methylin blue, sulfuric acid.	" 50	25	" ..	....
— " " alc. solut. (Loeffler).....	" 50	20	" ..	....
— Methylygreen -acetic acid (Strassburger).....	" 50	20	" ..	....
— Nissl's Soap solution.....	" 100	40	" ..	....
— Nocht-Jenner Stain for Blood Smears, Anaemias, and Malaria, acc. to Dr. C.W. Hastings of Cornell University, made by Eimer & Amend.....	50 ccm. bottle 75c..	" ..	" ..	....
— Orsellie Extract	" 25	35	" ..	....
— Paracarmin (P. Mayer).....	" 50	40	" ..	....
— Picrin nigrosin (Strassburger).....	" 100	30	" ..	....
— Picro carmine (Bizozzero).....	" 500	2 40	" ..	....
— " " (Cuccati).....	" 500	2 40	" ..	....
— " " (Weigert).....	" 500	2 40	" ..	....
— " lithion carmine (Orth).....	" 100	45	" 500	2 15
— Polycrome methylene blue Unna.....	" 50	30	" ..	....
— Resorcin-Fuchsin (Weigert).....	" 50	40	" ..	....
— Sour , carmine (Schweigg-Seidel).....	" 25	15	" ..	....
— Chlor-Zinc-Iodine solution.....	" 25	50	" ..	....

SUNDRIES.

— Asphalt varnish. Ia, for cover glasses.....	Gms. 100	\$0 20	Gms. ..	\$....
— Cover glass cement (Selenka).....	" 20	40	" ..	....
— Damar varnish (Schiefferdecker).....	" 100	45	" ..	....
— " xylol varnish.....	" 100	55	" ..	....
— Glue injecting compound, black.....	" 100	50	" ..	....
— " " " blue.....	" 100	40	" ..	....
— " " " red, conc, solid.....	" 100	2 00	" ..	....
— " " " yellow (Ackermann).....	" 100	50	" 500	2 40
— Maskenvarnish , black.....	" 100	60	" 500	2 90
— Oil for homogenous immersion.....	" 30	1 00	" ..	....
— " cedarwood Ia for ".....	" 30	45	" ..	....
— Paraffine , pure white, m. pt. 58° C.....	" 500	90	" ..	....
— " " " " 52° C.....	" 500	90	" ..	....
— " " " " 45° C.....	" 500	90	" ..	....
— " " " " 36° C.....	" 100	30	" 500	1 25
— " boiled (Graf Spee).....	" 250	1 10	" 500	2 00

GRUEBLER'S STAINS.—Continued

Collections of Coloring Materials, Etc.

—Collection of the necessary colors for staining bacilli, in case.....	\$ 2 00
— “ of twenty-four most important colors in case.....	9 00
— “ of coloring material, reagents, etc., for microscopical botany acc. to Stras- burger, in case with lock and key.....	14 00
— “ of coloring material, etc., for physician's use in microscopical anatomy, in case with lock and key.....	14 00
— “ of the most necessary coloring material, reagents and preparation masses for physicians' use in microscopical anatomy, in case with lock and key..	25 00

NOTE.

The above named Gruebler's colors and preparations are all kept in stock.

Almost all of the other chemicals and reagents mentioned in his original catalogue and not itemized here are also on hand.

Articles not in stock will be imported to order promptly.

Apply for Gruebler's Special List.

MOUNTING MEDIA.

	30	100	250	500cc.
—Asphaltum.....	25	60	1 25	2 00
— “ quick drying.....	35
—Balsam, Canada, powdered.....	3 00
— “ “ natural, paper filtered.....	2 75
— “ “ “ “ “ in 20 cc. collapsible tubes, each.....	35
— “ “ dissolved in Benzol.....	40	1 00	2 50	4 25
— “ “ “ “ Chloroform.....	40	1 15	2 65	5 00
— “ “ “ “ Xylol.....	40	1 15	2 65	5 00
— “ “ “ “ “ in 20 cc. collapsible tubes...20
— “ Damar in Benzol.....	40	90	1 85	3 50
—Brunswick black.....	25	60	1 25	2 00
—Bell's Microscopical Cement.....	50
—Brown's Transparent Rubber Cement.....	35
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